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SUGAR BULLETIN No. 30.

DEPARTMENT OF AGRICULTURE
BRITISH GUIANA.

THIRTIETH ANNUAL REPORT FOR THE YEAR ENDING THE 31st DECEMBER, 1961.

THE VARIETY AND FERTILIZER POSITION OF THE SUGAR INDUSTRY, XXVII.

REPORT ON THE SUGAR EXPERIMENT STATIONS FOR THE YEAR 1961.

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THE "DAILY CHRONICLE," LTD., GEORGETOWN, DEMERARA,
1962.

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BRITISH GUIANA SUGAR EXPERIMENT STATION.

THIRTIETH ANNUAL REPORT FOR THE YEAR ENDING THE 31ST DECEMBER, 1961.

INTRODUCTION

The weather during 1961 was not as favourable as usual for the growth of sugar cane, the rainfall being particularly deficient during the first five months of the year.

A comparison of the monthly rainfall at the Sugar Experiment Station for 1961 with the average rainfall for the period 1921—1961 is given in Table I below.

TABLE I.—Comparison of the Monthly Rainfall at Sophia Experiment Station for 1961 with the average for 1921 — 1961.

Month.	Actual Rainfall 1961. Inches.	Average Rainfall 1921—1961. Inches.	Excess or Deficit. Inches.
January	5.34	10.01	—4.67
February	2.16	4.75	—2.59
March	1.35	4.67	—3.32
April	1.04	6.90	—5.86
May	4.91	12.32	—7.41
June	18.38	15.08	3.30
July	9.91	11.54	—1.63
August	11.66	8.13	3.53
September	3.05	3.26	—0.21
October	2.67	3.89	—1.22
November	5.53	6.32	—0.79
December	6.78	13.68	—6.90
Total	72.78	100.55	—27.77

In spite of the dry weather at the beginning of the year a record crop of 3,929 tons of cane was reaped at Sophia during 1961.

Over 70,000 seedlings were potted by the Nursery Staff during 1961 as compared with the previous highest total of 58,102 seedlings for 1960. This total was comprised of 48,743 seedlings grown from fuzz produced at the B.W.I.

Central Sugar Cane Breeding Station and 21,465 seedlings from crosses carried out in British Guiana. At the time of planting there was insufficient land available at Sophia and some 16,000 seedlings were planted at Lusignan (Enmore Estate).

Ninety-four different crosses were made at Sophia during the 1961 breeding season. The germination from the seed of these crosses appears to be good but that of the Barbados fuzz can only be described as fair.

With the greatly increased number of seedlings under test at the Station a much larger proportion of the acreage is under seedlings and propagation plots. During 1961 therefore, most of the new trials were planted on Estate land.

SOME FACTORS AFFECTING SELECTION PROCEDURES IN BRITISH GUIANA.

In British Guiana, the climatic conditions are not conducive to the development of high quality in the cane. As is well known, the most important of the factors on which quality depends are amount of sunshine, the minimum temperatures in the month or so preceding harvest and the occurrence of relatively dry conditions to ripen-off the cane.

Of these factors—the high average rainfall and the occurrence of cloudy weather in the wet seasons result in total incident sunlight considerably less than more favoured areas such as the irrigated Hawaiian estates. Moreover, minimum temperatures are seldom below 70°F and for most of the time may be in the 73°—75°F range which is far above the optimum which is around 60°F.

The chief ripening factor is, therefore, a low rainfall or moisture-tension effect for some time before harvest. This is achieved only in certain weeks of fairly acute drought during which time the tons cane per ton sugar may drop to 8—8½. In general the average for the whole year is 10 or 11 and for short periods at the beginning of the crop season when conditions are particularly unfavourable may reach 13—15 tons cane per ton sugar.

Moreover, it has been found by experience that what is meant by good quality in cane is the ability to reach very good quality when the ripening conditions are fully favourable. Thus varieties such as B.4362, B.43253, Trojan, Pindar, etc., have the ability to produce exceptionally good quality cane when ripening conditions are outstandingly favourable—but may still be of exceedingly poor quality and no better than intrinsically poor quality varieties when the ripening conditions are unfavourable.

There is, therefore, a demand for a cane variety that is able to develop reasonable quality under unfavourable climatic conditions whilst at the same time producing an acceptable tonnage of cane and therefore, of sugar, per acre.

Since some of the factors conducive to attainment of good quality are morphological in nature, namely a continuing erect habit up to harvest, a rapid maturation of joints in the apical region, a free trashing habit and thus a short

'cabbage', these factors are highly desirable attributes in a selected variety. To combine these characters with suitable fibre content and the development of high pol. and purity in the juice, and the maintenance of high tonnage of cane for several ratoons, resistance to local diseases such as leaf scald and chlorotic streak, resistance to small moth borers, to the giant borer **Castnia licus** and freedom from excessive arrowing, is indeed asking a great deal and places a heavy task on the shoulders of the selectionist.

TABLE I.—**Results of Plant Cane "Variety-Sorting" Trials on Demerara Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre,		Trial No.
					Tons.	% Mean.	
	Sophia, Field 5 East "A". Reaped 21.3.61 at 12.00 months.						
	Rainfall:—92.20 inches.						
MEANS OF 4 PLOTS:	D.B. 78/56	45.24	14.42	87.6	6.52	129.62	269
	***B. 41227**	**39.30**	**16.16**	**90.4**	**6.35**	**126.24**	
	D.B. 35/56	39.85	14.22	89.2	5.67	112.72	
	D.B. 162/56	33.65	16.26	89.9	5.47	108.75	
	D.B. 9/56	39.65	13.79	84.7	5.47	108.75	
	D.B. 30/56	34.85	15.07	88.9	5.25	104.37	
	D.B. 89/56	33.59	15.07	89.7	5.06	100.60	
	D.B. 145/56	35.57	13.91	88.7	4.95	98.41	
	D.B. 108/56	32.88	14.17	87.6	4.66	92.64	
	D.B. 42/56	31.93	14.15	85.1	4.52	89.86	
	D B. 182/56	29.51	15.24	88.6	4.50	89.46	
	D.B. 21/56	30.90	14.23	86.0	4.40	87.48	
	D.B. 107/56	30.95	14.12	88.9	4.37	86.88	
	D.B. 10/56	31.42	13.81	85.1	4.34	86.28	
	D.B. 33/56	29.12	13.46	86.1	3.92	77.93	
	Mean:				5.03	100.00	
	Significant Difference, 20 : 1 :				.69	13.72	
	Sophia, Field 5 East "B". Reaped 21.3.61 at 12.00 months.						
	Rainfall:—92.20 inches.						
MEANS OF 4 PLOTS:	B. 5695	49.12	14.48	88.4	7.11	134.15	270
	***B. 41227**	**38.88**	**16.47**	**89.3**	**6.40**	**120.75**	
	B. 5660	40.25	14.00	88.5	5.63	106.23	
	B. 5686	45.04	12.20	79.7	5.49	103.58	
	D.B. 60/56	41.74	12.63	82.5	5.27	99.43	
	D.B. 76/56	37.93	13.32	89.5	5.05	95.28	
	D.B. 74/56	40.06	12.07	82.6	4.83	91.13	
	D.B. 75/56	36.80	12.80	86.0	4.71	88.87	
	D.B. 64/56	32.22	13.85	88.3	4.46	84.15	
	D.B. 69/56	28.87	13.94	86.3	4.02	75.85	
	Mean :				5.30	100.00	
	Significant Difference, 20 : 1 :				.99	18.68	

***Standard Cane.**

TABLE I. (Contd.)—**Results of Plant Cane "Variety Sorting" Trials on Demerara Frontland Clay.**

	Variety.	Cane per Acre. Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre. Tons.	Sucrose in Cane per Acre. % Mean.	Trial No.
Sophia, Field 5 East "C". Reaped 23.3.61 at 11.75 months. Rainfall:—91.89 inches.							
MEANS OF 4 PLOTS :	B. 58131	50.53	15.09	87.8	7.63	125.29	271
	B. 58128	49.61	14.24	83.9	7.06	115.93	
	B. 5840	46.21	15.04	89.1	6.95	114.12	
	B. 57114	42.96	16.09	87.0	6.91	113.46	
	B. 58125	41.36	16.50	90.1	6.82	111.99	
	***B. 41227**	**44.17**	**15.39**	**90.6**	**6.80**	**111.66**	
	B. 5788	39.31	17.24	89.5	6.77	111.17	
	B. 5871	44.45	14.95	88.3	6.64	109.03	
	B. 57128	39.91	16.00	91.0	6.39	104.93	
	B. 5835	38.28	16.37	89.4	6.27	102.96	
	B. 5876	46.83	13.29	83.3	6.22	102.13	
	B. 5781	33.63	18.04	91.5	6.07	99.67	
	B. 5869	38.91	15.53	89.5	6.04	99.18	
	B. 5854	43.01	13.88	85.7	5.97	98.03	
	B. 57122	34.52	17.12	90.0	5 91	97.04	
	B. 5879	38.16	15.42	89.5	5.88	96.55	
	B. 5830	37.77	15.15	87.5	5.72	93.92	
	B. 5723	36.98	15.08	88.9	5.58	91.63	
	B. 58194	37.64	14.80	87.2	5.57	91.46	
	B. 5882	35.86	15.24	87.7	5.46	89.66	
	B. 5823	37.61	14.21	86.1	5.34	87.68	
	B. 5866	32.88	16.04	88.2	5.27	86.54	
	B. 58207	35.90	14.01	85.2	5.03	82.59	
	B. 57149	33.82	14.78	88.7	5.00	82.10	
	B. 5792	33.51	14.45	84.9	4.84	79.47	
	Mean :				6.09	100.00	
	Significant Difference, 20 : 1 :				.99	17.77	
Sophia, Field 7 East. Reaped 27.4.61 at 12.50 months. Rainfall:—88.89 inches.							
MEANS OF 4 PLOTS :	B. 5829	45.17	16.46	88.0	7.43	127.66	272
	***B. 41227**	**40.21**	**18.37**	**92.3**	**7.38**	**126.80**	
	B. 58203	39.72	17.64	89.5	7.00	120.27	
	B. 5899	38.36	17.29	90.9	6.63	113.92	
	B. 58115	33.60	19.51	92.3	6.55	112.54	
	B. 58112	38.95	16.81	87.6	6.55	112.54	
	B. 58183	37.67	17.24	90.1	6.49	111.51	
	B. 58148	36.56	17.48	91.6	6.39	109.79	
	B. 5874	41.91	15.26	88.6	6.39	109.79	
	B. 5877	36.60	16.56	90.0	6.06	104.12	
	B. 58142	39.29	15.16	88.7	5.96	102.41	
	B. 5891	34.48	17.20	90.1	5.93	101.89	
	B. 5821	35.12	16.57	88.7	5.82	100.00	
	B. 58146	35.24	16.09	91.2	5.67	97.42	
	B. 58110	31.25	17.94	91.0	5.61	96.39	
	B. 5811	34.21	16.17	88.7	5.53	95.02	
	B. 5894	34.31	16.12	85.2	5.53	95.02	
	B. 58127	32.47	16.63	89.3	5.40	92.78	
	B. 58139	31.75	16.39	88.9	5.20	89.35	
	B. 58155	32.03	16.25	88.2	5.20	89.35	
	B. 5846	32.53	15.97	87.2	5.20	89.35	
	B. 5873	38.03	13.38	87.1	5.09	87.46	
	B. 58135	34.29	14.80	86.7	5.07	87.11	
	B. 58190	26 28	16.53	87.6	4.34	74.57	
	B. 58168	20.91	14.77	84.2	3.09	53.09	
	Mean :				5.82	100.00	
	Significant Difference, 20 : 1 :				1.02	17.53	

***Standard Cane.**

TABLE I. (Contd.) —**Results of Plant Cane "Variety Sorting" Trials on Demerara Frontland Clay.**

	Variety.	Cane per Acre, Tons	Pol. % Cane.	Purity	Sucrose in Cane per Acre.		Trial No.
					Tons.	% Mean.	
	Sophia, Field 6 East. Reaped 10.5.61 at 12.25 months. Rainfall:—85.34 inches.						
MEANS OF 4 PLOTS :	***B. 41227**	**32.47**	**17.26**	**91.6**	**5.60**	**122.81**	273
	B. 5824	31.98	17.22	91.5	5.51	120.83	
	B. 5890	29.69	17.90	92.8	5.31	116.45	
	B. 58108	29.90	17.74	91.0	5.30	116.23	
	B. 58109	30.32	17.35	89.1	5.26	115.35	
	B. 58124	26.08	18.34	90.6	4.78	104.82	
	B. 58226	27.18	17.61	91.2	4.78	104.82	
	B. 58192	27.31	17.34	89.0	4.73	103.73	
	B. 58195	27.57	16.99	88.9	4.68	102.63	
	B. 58161	26.76	16.78	89.8	4.49	98.46	
	B. 5872	28.38	15.75	90.6	4.47	98.03	
	B. 5836	27.90	15.85	88.4	4.42	96.93	
	B. 58186	23.97	18.33	90.4	4.39	96.27	
	B. 58208	26.82	16.01	89.2	4.29	94.08	
	B. 58141	25.63	16.43	87.7	4.21	92.32	
	B. 5841	22.56	18.07	93.0	4.08	89.47	
	B. 58169	23.75	16.84	89.4	4.00	87.72	
	B. 5892	24.07	16.05	89.2	3.86	84.65	
	B. 58210	21.11	17.80	91.5	3.75	82.24	
	B. 58167	22.14	15.34	84.2	3.39	74.34	
	Mean :				4.56	100.00	
	Significant Difference, 20 : 1 :				.82	17.98	
	Sophia, Field 9 West "A". Reaped 28.9.61 at 11.25 months. Rainfall:—76.86 inches.						
	D. 47/57	46.41	14.84	91.7	6.88	125.55	
	D. 16/57	44.70	14.36	88.2	6.41	116.97	
	D. 42/57	43.05	14.05	87.6	6.05	110.40	
	D. 48/57	38.01	15.67	89.4	5.95	108.58	
	***B. 41227**	**39.93**	**14.72**	**89.2**	**5.88**	**107.30**	
	D. 53/57	37.97	15.46	91.8	5.87	107.12	
	D. 34/57	37.94	15.23	90.2	5.78	105.47	
	D. 21/57	39.02	14.56	89.2	5.68	103.65	
MEANS OF 4 PLOTS :	D. 38/57	39.14	14.31	85.9	5.60	102.19	274
	D. 20/57	36.58	14.29	87.9	5.23	95.44	
	D. 43/57	36.81	13.65	84.7	5.02	91.61	
	D. 54/57	34.63	14.32	87.7	4.96	90.51	
	D. 52/57	30.91	14.01	85.7	4.33	79.01	
	D. 36/57	27.66	15.65	89.7	4.33	79.01	
	D. 41/57	30.72	13.65	87.1	4.19	76.46	
	Mean :				5.48	100.00	
	Significant Difference, 20 : 1 :				.91	16.61	

***Standard Cane.**

TABLE I. (Contd.)—**Results of Plant Cane "Variety Sorting" Trials on Demerara Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Trial No.
					Tons.	% Mean.	
	Sophia, Field 12 East "B". Reaped 23.11.61 at 12.50 months. Rainfall:—81.01 inches.						
MEANS OF 4 PLOTS :	D.B. 150/57	45.50	14.26	92.5	6.49	133.81	275
	D.B. 156/57	38.25	15.77	92.6	6.03	124.33	
	D.B. 159/57	38.12	14.89	90.3	5.68	117.11	
	D.B. 158/57	35.44	15.41	92.5	5.46	112.58	
	***B. 41227**	**37.13**	**14.46**	**88.6**	**5.37**	**110.72**	
	D.B. 16/57	34.17	15.45	90.6	5.28	108.87	
	D.B. 154/57	36.66	14.38	87.0	5.27	106.66	
	D.B. 182/57	37.14	13.89	88.1	5.16	106.39	
	D.B. 188/57	34.18	14.82	88.9	5.06	104.33	
	D.B. 173/57	35.26	13.89	88.3	4.90	101.03	
	D.B. 190/57	35.21	13.86	87.4	4.88	100.62	
	D.B. 24/57	31.15	15.31	91.2	4.77	98.35	
	D.B. 136/57	33.20	13.97	89.1	4.64	95.67	
	D.B. 153/57	27.74	16.69	92.0	4.63	95.46	
	D.B. 152/57	32.93	14.04	86.9	4.62	95.26	
	D.B. 112/57	30.66	15.00	89.7	4.60	94.85	
	D.B. 114/57	34.09	13.43	85.2	4.58	94.43	
	D.B. 162/57	30.69	14.76	90.1	4.53	93.40	
	D.B. 50/57	31.19	14.41	88.1	4.49	92.58	
	D.B. 25/57	32.42	13.76	88.6	4.46	91.96	
	D.B. 27/57	32.43	13.49	86.9	4.37	90.10	
	D.B. 48/57	31.24	13.60	86.7	4.25	87.63	
	D.B. 180/57	32.06	12.95	88.4	4.15	85.57	
	D.B. 28/57	30.86	13.30	84.9	4.11	84.74	
	D.B. 56/57	26.74	12.81	87.0	3.42	70.52	
	Mean :				4.85	100.00	
	Significant Difference, 20 : 1 :				.99	20.41	

***Standard Cane.**

TABLE I. (Contd.)—Results of First Ratoon "Variety Sorting" Trials on Demerara Frontland Clay.

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre, Tons.	Sucrose in Cane per Acre, % Mean.	Combined results for 2 Crops, Plants and 1st Ratoons. Variety.	Combined results for 2 Crops, Plants and 1st Ratoons. Sucrose in Cane per Acre. Tons.	Trial No.
	Sophia, Field 4 East "B". Reaped 7.3.61 at 12.75 months. Rainfall:—95.53 inches.								
MEANS OF 4 PLOTS:	D.B. 161/56	47.29	15.93	86.4	7.53	133.75	D.B. 161/56	15.03	239
	D.B. 188/56	50.53	14.68	86.7	7.42	131.79	D.B. 188/56	14.81	
	D.B. 72/56	46.84	14.76	87.6	6.91	122.74	***B. 41227**	**14.61**	
	D.B. 159/56	42.17	16.02	87.2	6.75	119.89	D.B. 72/56	14.25	
	D.B. 169/56	45.08	14.95	87.6	6.74	119.72	D.B. 136/56	14.01	
	***B. 41227**	**44.34**	**15.19**	**89.2**	**6.73**	**119.54**	D.B. 169/56	13.54	
	D.B. 77/56	41.31	15.18	87.7	6.27	111.37	D.B. 7/56	13.27	
	D.B. 58/56	43.61	14.37	88.1	6.27	111.37	D.B. 58/56	13.17	
	D.B. 136/56	43.24	14.42	84.7	6.23	110.66	D.B. 166/56	13.02	
	D.B. 23/56	42.29	14.54	87.0	6.15	109.24	D.B. 159/56	12.86	
	D.B. 166/56	39.24	15.51	89.2	6.09	108.17	D.B. 134/56	12.47	
	D.B. 7/56	45.97	13.19	83.9	6.06	107.64	D.B. 77/56	12.43	
	D.B. 63/56	40.70	14.20	89.0	5.78	102.66	D.B. 38/56	12.43	
	D.B. 134/56	37.72	15.02	88.2	5.66	100.53	D.B. 23/56	12.40	
	D.B. 167/56	39.39	14.07	85.9	5.54	98.40	D.B. 63/56	12.26	
	D.B. 100/56	37.84	14.33	84.9	5.42	96.27	D.B. 119/56	12.13	
	D.B. 172/56	37.59	14.31	86.1	5.38	95.56	D.B. 100/56	12.10	
	D.B. 104/56	41.96	12.64	81.7	5.30	94.14	D.B. 167/56	11.81	
	D.B. 128/56	41.15	12.80	82.6	5.27	93.61	D.B. 44/56	11.72	
	D.B. 44/56	40.36	13.04	87.4	5.26	93.43	D.B. 104/56	11.38	
	D.B. 119/56	35.43	14.35	83.1	5.09	90.41	D.B. 137/56	11.36	
	D.B. 38/56	34.79	14.15	86.2	4.92	87.39	D.B. 2/56	11.11	
	D.B. 137/56	40.02	12.21	79.4	4.88	86.68	D.B. 172/56	11.03	
	D.B. 180/56	40.92	11.85	82.2	4.85	86.15	D.B. 128/56	10.90	
	D.B. 2/56	31.64	15.26	88.0	4.82	85.61	D.B. 180/56	10.67	
	D.B. 25/56	36.52	12.66	80.8	4.62	82.06	D.B. 25/56	9.97	
	D.B. 67/56	41.38	11.15	83.2	4.61	81.88	D.B. 67/56	9.96	
	D.B. 181/56	36.04	12.33	83.5	4.44	78.86	D.B. 181/56	9.69	
	D.B. 160/56	33.65	12.28	82.7	4.13	73.36	D.B. 132/56	9.49	
	D.B. 132/56	25.35	15.24	85.9	3.86	68.56	D.B. 160/56	9.12	
	Mean :				5.63	100.00			
	Significant Difference, 20: 1:				.90	15.99			
	Sophia, Field 4 East "A". Reaped 11.3.61 at 12.00 months. Rainfall:—94.42 inches.								
MEANS OF 4 PLOTS:	B. 55304	49.27	14.97	89.1	7.38	124.45	***B. 41227**	**14.64**	240
	B. 55258	56.40	12.47	83.2	7.03	118.55	B. 55304	14.47	
	B. 5599	56.45	11.70	81.0	6.60	111.30	B. 55362	14.28	
	B 55362	43.51	14.99	90.1	6.52	109.95	B. 55258	14.21	
	B. 55111	44.05	14.69	89.4	6.47	109.11	B. 5599	14.20	
	B. 55137	44.89	13.98	87.9	6.27	105.73	B. 55309	13.49	
	B. 5579	42.90	14.15	87.7	6.07	102.36	D. 7/56	13.40	
	B. 5557	44.05	13.45	87.6	5.92	99.83	B. 55137	13.12	
	D. 7/56	44.96	13.10	84.3	5.89	99.33	B. 5579	13.10	
	D. 19/56	40.71	14.43	86.9	5.87	98.99	D. 19/56	12.95	
	D. 12/56	41.63	14.09	86.9	5.86	98.82	B. 55132	12.91	
	B. 55309	40.34	14.31	87.7	5.77	97.30	B. 55111	12.77	
	B. 55317	44.42	12.97	82.8	5.76	97.13	B. 55317	12.55	
	***B. 41227**	**44.34**	**12.48**	**84.4**	**5.54**	**93.42**	B. 55250	12.53	
	B. 55250	42.96	12.80	83.1	5.50	92.75	B. 55244	12.48	
	B. 55244	47.98	11.45	78.7	5.49	92.58	B. 5503	12.38	
	B. 5503	40.76	13.47	86.0	5.49	92.58	B. 5557	12.10	
	B. 55132	45.48	11.96	83.0	5.44	91.74	D. 12/56	11.92	
	B. 5527	35.15	14.13	84.7	4.97	83.81	B. 5527	10.91	
	B. 55109	41.49	11.33	80.4	4.70	79.26	B. 55109	9.90	
	Mean :				5.93	100.00			
	Significant Difference, 20: 1:				.96	16.19			

***Standard Cane.**

TABLE I. (Contd.) —**Results of First Ratoon "Variety Sorting" Trials on Demerara Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Combined results for 2 Crops, Plants, and 1st Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane per Acre, Tons.	
	Sophia, Field 9 East "B". Reaped 22.9.61 at 11.00 months.								
	Rainfall:—75.58 inches.								
MEANS OF 5 PLOTS.	B. 5785	43.62	15.13	90.6	6.60	132.00	B. 5785	12.72	242
	B. 57109	44.82	13.88	88.6	6.22	124.40	B. 5788	12.64	
	B. 5788	39.88	15.58	90.1	6.21	124.20	B. 5779	12.49	
	B. 5779	39.75	15.54	89.5	6.18	123.60	B. 57109	11.47	
	B. 5706	43.00	13.13	87.6	5.65	113.00	B. 5736	11.37	
	B. 5736	36.84	15.39	91.9	5.59	111.80	B. 5706	11.09	
	***B. 41227**	**38.14**	**14.45**	**88.3**	**5.51**	**110.20**	***B. 41227**	**11.07**	
	B. 5725	37.90	13.96	90.7	5.29	105.80	B. 5725	10.18	
	B. 5772	41.60	12.55	85.2	5.22	104.40	B. 5795	9.89	
	B. 5795	33.01	15.35	90.5	5.07	101.40	B. 5772	9.88	
	B. 5724	34.21	14.81	91.8	5.06	101.20	B. 5724	9.61	
	B. 5717	31.76	15.43	91.1	4.90	98.00	B. 5717	9.52	
	B. 57124	32.59	14.94	88.2	4.87	97.40	B. 5796	9.31	
	B. 5796	29.12	15.82	92.4	4.61	92.20	B. 57124	9.13	
	B. 57118	30.47	15.13	89.7	4.61	92.20	B. 57118	8.30	
	B. 57152	33.66	13.35	84.9	4.49	89.80	B. 57152	8.24	
	B. 5762	29.36	14.55	89.9	4.27	85.40	B. 5762	7.81	
	B. 57173	30.36	13.63	87.1	4.14	82.80	B. 57173	7.62	
	B. 57142	27.74	14.79	88.1	4.10	82.00	B. 57142	7.42	
	B. 57105	24.49	13.60	83.8	3.33	66.60	B. 57105	6.45	
	B. 57135	24.79	12.18	87.0	3.02	60.40	B. 57135	5.05	
	Mean :				5.00	100.00			
	Significant Difference, 20 : 1 :				.73	14.60			
	Sophia, Field 9 East "A". Reaped 27.9.61 at 11.00 months.								
	Rainfall:—76.38 inches.								
MEANS OF 5 PLOTS.	B. 5733	36.31	17.30	92.7	6.28	139.56	B. 5780	12.60	243
	B. 5780	39.67	14.81	87.3	5.87	130.44	B. 5733	11.78	
	B. 5707	39.85	14.48	86.8	5.77	128.22	B. 5784	11.46	
	B. 5784	37.50	15.09	88.1	5.66	125.78	B. 57162	11.35	
	B. 57162	44.30	12.68	87.3	5.62	124.89	***B. 41227**	**10.66**	
	***B. 41227**	**35.95**	**15.50**	**90.1**	**5.57**	**123.78**	B. 5707	10.24	
	B. 5789	36.92	14.61	87.3	5.39	119.78	B. 5782	9.70	
	B. 5712	32.09	16.00	91.1	5.13	114.00	B. 5712	9.51	
	B. 57168	33.30	15.37	88.5	5.12	113.78	B. 5789	9.42	
	B. 57116	33.42	14.62	87.8	4.88	108.44	B. 5748	9.30	
	B. 5782	29.94	15.20	87.9	4.55	101.11	B. 57168	9.12	
	B. 5748	32.41	13.49	83.2	4.37	97.11	B. 57116	8.71	
	B. 57120	26.18	16.51	91.7	4.32	96.00	B. 57120	8.38	
	B. 5770	31.05	12.07	83.9	3.75	83.33	B. 5770	7.32	
	B. 57115	21.84	16.31	88.2	3.56	79.11	B. 57139	6.97	
	B. 57139	24.11	14.29	88.4	3.45	76.67	B. 57143	6.97	
	B. 57143	22.83	14.59	87.5	3.33	74.00	B. 5743	6.97	
	B. 5743	23.79	13.87	89.3	3.30	73.33	B. 57175	6.73	
	B. 57175	19.33	16.24	92.0	3.14	69.78	B. 57134	6.11	
	B. 57134	22.56	12.88	88.7	2.90	64.44	B. 57115	6.00	
	B. 57131	17.11	14.84	88.2	2.54	56.44	B. 57131	5.55	
	Mean :				4.50	100.00			
	Significant Difference, 20 : 1 :				.98	21.78			

*** Standard Cane.**

TABLE I. (Contd.)—Results of Second Ratoon "Variety Sorting" Trials on Demerara Frontland Clay.

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Combined results for 3 Crops, Plants, 1st and 2nd Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane per Acre. Tons.	
	Sophia, Field 16 West "A". Reaped 5.4.61 at 12.00 months.								
	Rainfall:—91.86 inches.								
MEANS OF 5 PLOTS:	***B. 41227**	**34.72**	**16.90**	**88.4**	**5.87**	**129.01**	D.B. 6/55	17.15	215
	B. 52315	32.00	16.82	87.6	5.38	118.24	***B. 41227**	**16.54**	
	D.B. 6/55	31.88	16.85	90.8	5.37	118.02	D.B. 10/55	15.97	
	D.B. 10/55	32.81	16.03	89.0	5.26	115.60	D.B. 5/55	15.79	
	D.B. 5/55	31.00	16.35	87.9	5.07	111.43	D.B. 9/55	15.68	
	D.B. 57/55	32.02	15.59	89.0	4.99	109.67	D.B. 57/55	14.88	
	D.B. 9/55	30.79	15.67	90.3	4.82	105.93	D.B. 8/55	14.60	
	D.B. 20/55	28.73	16.48	87.5	4.73	103.96	B. 52315	14.19	
	D.B. 8/55	29.34	15.98	87.9	4.69	103.08	D.B. 20/55	13.97	
	D.B. 7/55	29.65	15.52	87.2	4.60	101.10	D.B. 44/55	13.91	
	D.B. 44/55	29.51	14.24	83.8	4.20	92.31	D.B. 7/55	13.34	
	D.B. 59/55	28.85	14.27	86.3	4.11	90.33	D.B. 59/55	12.87	
	D.B. 4/55	30.84	13.33	80.3	4.11	90.33	D.B. 13/55	11.95	
	D.B. 13/55	27.50	14.89	87.6	4.10	90.11	D.B. 4/55	11.19	
	D.B. 24/55	26.47	13.31	82.3	3.52	77.36	D.B. 24/55	10.60	
	D.B. 1/55	22.39	15.18	86.3	3.40	74.73	N.Co. 300	10.49	
	N.Co. 300	24.24	13.26	84.5	3.21	70.55	D.B. 1/55	10.14	
	Mean :				4.55	100.00			
	Significant Difference, 20 : 1 :				.76	16.63			
	Sophia, Field 16 East "B". Reaped 6.4.61 at 12.00 months.								
	Rainfall:—88.86 inches.								
MEANS OF 4 PLOTS:	***B. 41227**	**38.27**	**17.22**	**93.6**	**6.59**	**144.20**	***B. 41227**	**17.74**	218
	D. 278/55	33.57	17.22	90.2	5.78	126.48	D. 245/55	15.84	
	D. 238/55	37.00	15.32	89.1	5.67	124.07	D. 248/55	15.48	
	D. 202/55	34.49	15.51	85.9	5.43	118.82	D. 50/54	14.87	
	D. 253/55	35.33	15.19	87.8	5.37	117.51	D. 278/55	14.55	
	D. 50/54	33.39	15.57	87.4	5.20	113.79	D. 202/55	14.34	
	D. 245/55	34.91	14.53	85.5	5.07	110.94	D. 238/55	14.31	
	D. 214/55	30.23	16.73	91.2	5.05	110.50	D. 239/55	14.19	
	D. 207/55	31.42	15.94	88.0	5.01	109.63	D. 249/55	13.81	
	D. 242/55	33.26	14.69	86.1	4.88	106.78	D. 214/55	13.75	
	D. 236/55	32.23	15.07	88.3	4.85	106.13	D. 242/55	13.63	
	D. 240/55	29.79	16.07	88.8	4.79	104.81	D. 207/55	13.55	
	D. 267/55	31.50	15.21	87.3	4.79	104.81	D. 240/55	13.15	
	D. 248/55	37.25	12.80	80.3	4.77	104.38	D. 267/55	12.94	
	D. 249/55	30.70	15.19	86.8	4.66	101.97	D.B. 13/55	12.81	
	D. 246/55	35.43	13.09	84.9	4.64	101.53	D. 236/55	12.55	
	D. 239/55	32.71	13.79	83.5	4.51	98.69	D. 253/55	12.24	
	D. 219/55	26.84	15.51	87.6	4.16	91.03	D. 246/55	12.10	
	D.B. 13/55	31.50	12.59	84.2	3.97	86.87	D. 219/55	11.99	
	D. 255/55	23.54	15.76	89.8	3.71	81.18	D.B. 101/55	11.71	
	D. 195/55	21.76	15.41	87.3	3.35	73.30	D. 255/55	11.70	
	D. 201/55	24.90	13.43	82.6	3.34	73.09	D. 201/55	11.40	
	D.B. 101/55	22.75	14.14	86.2	3.22	70.46	D. 180/55	10.73	
	D. 180/55	19.47	16.10	90.5	3.13	68.49	D. 195/55	10.67	
	D. 203/55	17.03	13.25	84.4	2.25	49.23	D. 203/55	9.24	
	Mean :				4.57	100.00			
	Significant Difference, 20 : 1 :				.96	21.01			

Standard Cane.

TABLE I. (Contd.)—**Results of Second Ratoon "Variety Sorting" Trials on Demerara Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre, Tons.	Sucrose in Cane per Acre, % Mean.	Combined Results for 3 Crops, Plants, 1st and 2nd Ratoons. Variety.	Combined Results for 3 Crops, Plants, 1st and 2nd Ratoons. Sucrose in Cane per Acre. Tons.	Trial No.
	Sophia, Field 10 West "B". Reaped 13.4.61 at 11.75 months. Rainfall:—86.36 inches.								
MEANS OF 5 PLOTS:	***B. 41227**	**38.33**	**16.78**	**89.2**	**6.43**	**130.96**	B. 54163	21.72	213
	B. 54281	36.95	15.44	88.0	5.71	116.29	***B. 41227**	**19.49**	
	B. 5411	35.71	15.45	86.5	5.52	112.42	B. 5411	19.40	
	B. 54163	31.19	17.28	90.5	5.39	109.78	B. 5490	18.83	
	B. 5490	34.69	16.33	90.4	5.34	108.76	B. 54281	18.78	
	B. 54277	35.09	15.18	87.6	5.32	108.35	B. 54277	18.69	
	B. 54243	31.36	16.63	89.6	5.22	106.31	B. 54142	17.10	
	B. 54142	29.84	17.23	89.9	5.14	104.68	B. 54243	16.96	
	B. 5463	31.86	15.32	86.3	4.88	99.39	B. 54262	16.70	
	B. 5401	29.72	16.36	88.1	4.86	98.98	B. 5480	16.56	
	B. 5480	27.95	17.30	90.7	4.84	98.57	B. 5463	16.38	
	B. 54262	28.24	16.59	89.3	4.69	95.52	B. 54172	15.20	
	B. 54172	25.81	17.76	92.4	4.59	93.48	B. 5401	14.78	
	B. 54215	28.45	15.67	89.1	4.46	90.83	B. 54215	14.74	
	B. 54237	22.08	17.13	90.5	3.77	76.78	B. 54237	12.98	
	B. 54235	24.92	14.83	88.4	3.70	75.36	B. 54235	12.83	
	B. 54193	22.45	16.08	87.2	3.61	73.52	B. 54193	11.66	
	Mean:				4.91	100.00			
	Significant Difference, 20: 1:				.88	17.92			
	Sophia, Field 10 West "A". Reaped 14.4.61 at 11.75 months. Rainfall:—85.25 inches.								
MEANS OF 5 PLOTS:	B. 54253	32.13	17.27	89.3	5.55	125.57	B. 54253	18.80	217
	D.B. 137/55	32.65	16.28	91.2	5.32	120.36	D.B. 162/55	17.73	
	D.B. 33/55	33.31	15.85	89.2	5.28	119.46	***B. 41227**	**17.34**	
	***B. 41227**	**34.02**	**15.14**	**85.9**	**5.15**	**116.52**	D.B. 33/55	16.06	
	D.B. 162/55	28.87	16.73	87.5	4.83	109.28	D.B. 137/55	15.97	
	B. 5449	29.86	15.72	88.2	4.69	106.11	D.B. 101/55	14.12	
	D.B. 139/55	28.71	16.11	88.8	4.63	104.75	D.B. 90/55	13.94	
	D.B. 101/55	34.90	13.21	81.8	4.61	104.30	D.B. 139/55	13.68	
	D.B. 151/55	28.25	15.80	88.1	4.46	100.90	D.B. 49/55	13.61	
	D.B. 90/55	27.21	16.27	89.2	4.43	100.23	B. 5449	13.56	
	D.B. 71/55	25.39	17.06	88.3	4.33	97.96	D.B. 151/55	13.29	
	D.B. 99/55	27.19	15.18	86.6	4.13	93.44	D.B. 71/55	12.80	
	D.B. 49/55	27.46	15.05	87.5	4.13	93.44	D.B. 99/55	12.60	
	D.B. 154/55	28.26	12.64	82.6	3.57	80.77	D.B. 154/55	12.01	
	D.B. 124/55	22.84	15.40	87.4	3.52	79.64	D.B. 124/55	10.93	
	D.B. 123/55	27.37	12.51	84.1	3.42	77.38	D.B. 68/55	10.79	
	D.B. 68/55	17.59	17.87	91.5	3.14	71.04	D.B. 123/55	10.04	
	Mean :				4.42	100.00			
	Significant Difference, 20:1:				.90	20.36			

***Standard Cane.**

TABLE I. (Contd.) —Results of Second Ratoon "Variety Sorting" Trials on Demerara Frontland Clay.

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Combined results for 3 Crops, Plants, 1st and 2nd Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane per Acre, Tons.	
	Sophia, Field 6 West "B". Reaped 25.4.61 at 11.75 months. Rainfall:—85.14 inches.								
	D. 26/52	34.24	17.21	92.1	5.89	136.03	D. 26/52	21.72	
	***B. 41227**	**33.61**	**15.74**	**89.9**	**5.29**	**122.17**	***B. 41227**	**19.35**	
	D. 44/52	30.15	17.22	88.5	5.19	119.86	D. 44/52	18.23	
	D.B. 167/55	29.16	16.59	89.3	4.83	111.55	D.B. 167/55	16.22	
	D. 45/52	28.83	15.46	85.0	4.46	103.00	D.B. 170/55	16.17	
MEANS OF 5 PLOTS:	D.B. 170/55	28.89	14.84	84.2	4.29	99.08	D. 45/52	15.79	
	D.B. 13/55	30.48	13.87	87.5	4.23	97.69	D.B. 154/55	14.85	216
	D.B. 154/55	29.13	13.45	83.4	3.92	90.53	D.B. 13/55	14.70	
	D.B. 84/55	24.90	15.14	82.3	3.77	87.07	D.B. 166/55	14.23	
	D.B. 85/55	20.65	17.12	87.7	3.53	81.52	D.B. 84/55	13.59	
	D.B. 89/55	21.16	15.72	86.5	3.33	76.91	D.B. 85/55	13.38	
	D.B. 166/55	20.99	15.62	85.6	3.28	75.75	D.B. 89/55	12.51	
	Mean:				4.33	100.00			
	Significant Difference, 20: 1:				.91	21.02			
	Sophia, Field 4 East "B". Reaped 7.12.61 at 9.00 months. Rainfall:—75.57 inches.								
	D.B. 136/56	31.84	15.60	87.6	4.97	139.22	D.B. 136/56	18.98	
	D.B. 169/56	37.00	11.64	82.3	4.31	120.73	D.B. 161/56	18.96	
	D.B. 100/56	30.13	13.69	84.6	4.13	115.69	D.B. 188/56	18.74	
	D.B. 44/56	27.76	14.58	89.0	4.05	113.45	***B. 41227**	**18.44**	
	D.B. 72/56	33.59	11.79	81.5	3.96	110.92	D.B. 72/56	18.21	
	D.B. 188/56	35.97	10.94	81.0	3.93	110.08	D.B. 169/56	17.85	
	D.B. 161/56	32.23	12.18	81.5	3.93	110.08	D.B. 58/56	17.05	
	D.B. 58/56	29.81	13.02	83.3	3.88	108.68	D.B. 7/56	16.74	
	D.B. 172/56	31.89	12.06	81.7	3.84	107.56	D.B. 166/56	16.54	
	***B. 41227**	**31.04**	**12.33**	**84.7**	**3.83**	**107.28**	D.B. 100/56	16.23	
	D.B. 23/56	31.97	11.48	84.5	3.67	102.80	D.B. 159/56	16.16	
	D.B. 77/56	27.48	13.27	85.1	3.64	101.96	D.B. 77/56	16.07	
	D.B. 137/56	28.86	12.58	84.8	3.63	101.68	D.B. 23/56	16.07	
	D.B. 38/56	25.04	14.48	87.8	3.62	101.40	D.B. 38/56	16.05	
MEANS OF 4 PLOTS:	D.B. 167/56	26.40	13.50	85.5	3.56	99.72	D.B. 134/56	15.94	
	D.B. 104/56	29.49	12.04	84.4	3.55	99.44	D.B. 44/56	15.77	
	D.B. 166/56	25.93	13.57	86.4	3.52	98.60	D.B. 63/56	15.61	239
	D.B. 25/56	29.47	11.86	82.3	3.49	97.76	D.B. 167/56	15.37	
	D.B. 2/56	22.35	15.57	88.4	3.48	97.48	D.B. 119/56	15.25	
	D.B. 7/56	29.07	11.94	82.3	3.47	97.20	D.B. 137/56	14.99	
	D.B. 134/56	27.29	12.72	83.2	3.47	97.20	D.B. 104/56	14.93	
	D.B. 160/56	29.11	11.91	82.2	3.46	96.92	D.B. 172/56	14.87	
	D.B. 63/56	25.24	13.29	86.4	3.35	93.84	D.B. 2/56	14.59	
	D.B. 159/56	25.54	12.96	83.3	3.30	92.44	D.B. 128/56	13.72	
	D.B. 119/56	25.60	12.18	82.8	3.12	87.39	D.B. 25/56	13.46	
	D.B. 181/56	29.18	10.67	78.9	3.11	87.11	D.B. 180/56	13.45	
	D.B. 67/56	29.69	10.09	80.4	3.00	84.03	D.B. 67/56	12 96	
	D.B. 128/56	30.16	9.34	75.8	2.82	78.99	D.B. 181/56	12.80	
	D.B. 180/56	28.99	9.61	76.2	2.78	77.87	D.B. 160/56	12.58	
	D.B. 132/56	19.13	11.35	80.5	2.17	60.78	D.B. 132/56	11.66	
	Mean :				3.57	100.00			
	Significance Difference, 20 : 1 :				.62	17.37			

***Standard Cane.**

TABLE 1. (Contd.)—Results of Second Ratoon "Variety Sorting" Trials on Demerara Frontland Clay.

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Combined results for 3 Crops, Plants, 1st and 2nd Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane per Acre. Tons.	
	‡ *Sophia, Field 4 East "C". Reaped 8.12.61 at 9.00 months. Rainfall:—75.51 inches.*								
MEANS OF 4 PLOTS:	B. 57138	32.76	13.77	85.3	4.51	115.94	*B. 41227	12.90	241
	*B. 41227	29.90	14.92	89.3	4.46	114.65	B. 57138	11.91	
	B. 5749	33.19	13.15	84.6	4.36	112.08	B. 5703	11.62	
	B. 57145	32.80	12.45	82.9	4.08	104.88	B. 5749	11.53	
	B. 57166	36.62	10.66	77.0	3.90	100.26	B. 57145	10.73	
	B. 57125	28.55	13.58	87.0	3.87	99.49	B. 57166	10.62	
	B. 5759	25.58	14.44	86.0	3.69	94.86	B. 57125	10.60	
	B. 57104	36.67	9.30	74.7	3.41	87.66	B. 5759	10.54	
	B. 5703	31.06	10.97	83.3	3.41	87.66	B. 5747	8.89	
	B. 5747	29.23	10.86	80.9	3.17	81.49	B. 57104	8.75	
	Mean :				3.89	100.00			
	Significant Difference, 20 : 1 :				.58	14.91			
	Sophia, Field 4 East "A". Reaped 8.12.61 at 9.00 months. Rainfall:—75.79 inches.								
MEANS OF 4 PLOTS:	B. 55258	45.78	11.18	76.5	5.12	122.78	B. 55304	19.36	240
	B. 55304	37.09	13.19	85.3	4.89	117.27	B. 55258	19.33	
	B. 55362	34.55	14.08	87.2	4.86	116.55	B. 55362	19.14	
	B. 55309	32.59	14.62	89.5	4.76	114.15	*B. 41227	18.89	
	B. 5557	36.96	12.35	85.0	4.56	109.35	B. 55309	18.25	
	B. 55250	32.57	13.90	85.1	4.53	108.63	B. 5599	18.07	
	D. 7/56	31.30	13.82	84.8	4.33	103.84	D. 7/56	17.73	
	*B. 41227	31.88	13.35	86.0	4.25	101.92	B. 55137	17.06	
	B. 55132	32.96	12.60	85.5	4.15	99.52	B. 55132	17.06	
	B. 55111	30.02	13.76	86.4	4.13	99.04	B. 55250	17.06	
	B. 55109	33.67	11.73	83.4	3.95	94.72	B. 55111	16.90	
	B. 55137	33.18	11.87	83.9	3.94	94.48	B. 5579	16.84	
	B. 5503	28.60	13.66	84.7	3.91	93.76	D. 19/56	16.71	
	B. 5599	38.59	10.04	74.2	3.87	92.81	B. 5557	16.66	
	B. 55317	35.24	10.99	77.1	3.87	92.81	B. 55317	16.42	
	D. 19/56	26.49	14.20	87.2	3.76	90.17	B. 5503	16.29	
	B. 5579	31.09	12.03	83.6	3.74	89.69	B. 55244	16.07	
	B. 5527	28.66	12.89	84.4	3.69	88.49	D. 12/56	15.46	
	B. 55244	36.64	9.79	74.1	3.59	86.09	B. 5527	14.60	
	D. 12/56	26.95	13.15	83.5	3.54	84.89	B. 55109	13.85	
	Mean :				4.17	100.00			
	Significant Difference, 20 : 1 :				.79	18.94			

* Standard Cane.

‡ Combined results in this experiment are for Plants and 2nd Ratoons only.

TABLE II.—**Results of a Plant Cane "Variety Sorting" Trial on Pegassy Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Trial No.
					Tons.	% Mean.	
Pln. Wales, Field V. La. F.A. 33. Reaped 23.11.61 at 11.50 months. Rainfall:—62.77 inches.							
	***B. 41227**	**43.91**	**14.62**	**88.2**	**6.42**	**131.02**	
	B. 55309	38.31	14.52	89.1	5.56	113.47	
	B. 55304	42.40	12.87	85.5	5.46	111.43	
	B. 5748	41.41	12.54	82.7	5.19	105.92	
	B. 55317	40.29	12.63	79.9	5.09	103.88	
	B. 5503	38.76	13.00	86.5	5.04	102.86	
	B. 55244	42.34	11.89	80.1	5.03	102.65	
	B. 5781	34.14	14.54	89.6	4.96	101.22	
MEANS OF 4 PLOTS:	B. 55137	39.46	12.52	85.7	4.94	100.82	
	B. 55227	38.53	12.77	83.8	4.92	100.41	276
	B. 55228	33.45	14.71	88.7	4.92	100.41	
	B. 5795	34.22	13.76	85.7	4.71	96.12	
	B. 55258	55.28	8.48	71.8	4.69	95.71	
	B. 5733	35.53	12.90	84.8	4.58	93.47	
	B. 55362	29.92	15.31	89.9	4.58	93.47	
	B. 5712	33.71	13.44	84.9	4.53	92.45	
	B. 5579	33.85	13.18	86.0	4.46	91.02	
	B. 57162	43.89	9.51	77.9	4.17	85.10	
	B. 5707	30.04	12.66	87.8	3.80	77.55	
	Mean:				4.90	100.00	
	Significant Difference, 20: 1:				.79	16.12	

*Standard Cane.

TABLE II. (Contd.)—**Results of a Second Ratoon "Variety Sorting" Trial on Pegassy Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Combined results for 3 Crops, Plants, 1st and 2nd Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane per Acre, Tons.	
	Pln. De Kinderen, Field 74 W. Reaped 19.9.61 at 12.25 months.								
	Rainfall:—89.54 inches.								
	B. 54277	41.35	12.41	79.6	5.13	139.78	B. 54253	14.37	
	B. 54253	37.75	12.60	81.4	4.75	129.43	B. 54262	14.34	
	B. 54262	38.86	11.83	81.9	4.60	125.34	B. 54142	14.30	
	B. 54142	34.41	12.81	82.6	4.41	120.16	B. 54277	14.08	
	B. 54163	33.66	12.81	80.7	4.31	117.44	B. 54163	13.20	
	B. 5401	32.97	12.77	79.1	4.21	114.71	B. 5490	12.71	
	B. 5449	31.56	12.39	83.1	3.91	106.54	B. 54172	11.41	
	B. 5463	32.36	11.83	83.0	3.83	104.36	B. 5463	11.27	
MEANS OF 4	B. 5490	34.60	10.89	79.1	3.77	102.72	B. 5449	11.14	
PLOTS:	***B. 41227**	**32.91**	**11.11**	**76.0**	**3.66**	**99.73**	***B. 41227**	**11.00**	214
	B. 5480	29.21	12.12	82.7	3.55	96.46	B. 5401	10.99	
	B. 54172	27.20	12.33	82.7	3.35	91.28	B. 5480	10.45	
	B. 54243	29.56	10.33	75.9	3.05	83.11	B. 54243	10.12	
	B. 54215	25.68	11.55	81.2	2.96	80.65	B. 5411	8.68	
	B. 5411	32.55	8.85	75.4	2.88	78.47	B. 54281	8.59	
	B. 54281	29.08	9.86	71.9	2.87	78.20	B. 54215	7.68	
	B. 54235	21.75	11.29	80.8	2.46	67.03	B. 54235	6.81	
	B. 54193	25.18	9.74	69.5	2.45	66.76	B. 54193	6.52	
	Mean:				3.67	100.00			
	Significant Difference, 20: 1:				.62	16.89			

* Standard Cane.

TABLE III. (a).—Results of Plant Cane Variety Trials on Demerara Frontland Clay.

	Variety.	Cane. per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre. Tons.	Sucrose in Cane per Acre. % Mean.	Trial No.
Sophia, Field 1 East. Reaped 18.5.61 at 10.25 months. Rainfall:—49.59 inches.							
MEANS OF 4 PLOTS:	D.B. 136/56	42.31	17.39	90.2	7.36	115.36	277
	***B. 41227**	**42.22**	**16.34**	**89.5**	**6.90**	**108.15**	
	D.B. 5/55	43.70	14.95	89.0	6.53	102.35	
	D.B. 7/56	41.54	15.32	87.1	6.36	99.69	
	D.B. 38/56	39.62	15.95	88.7	6.31	98.90	
	D. 249/55	39.64	15.20	90.1	6.02	94.36	
	D. 214/55	38.58	15.14	88.9	5.84	91.54	
	D.B. 188/56	45.70	12.48	82.5	5.70	89.34	
	Mean :				6.38	100.00	
	Significant Difference, 20 : 1 :				.85	13.32	
Sophia, Field 12 East "A". Reaped 29.11.61 at 11.75 months. Rainfall:—75.15 inches.							
MEANS OF 5 PLOTS:	***B. 41227**	**38.50**	**14.57**	**90.1**	**5.61**	**119.62**	278
	B. 5785	40.03	13.27	87.4	5.31	113.22	
	B. 5780	37.54	13.40	85.5	5.03	107.25	
	B. 5788	33.17	13.51	87.6	4.48	95.52	
	B. 57162	37.60	11.53	86.1	4.33	92.32	
	B. 5784	32.45	12.67	84.2	4.11	87.63	
	B. 5779	27.80	14.35	86.7	3.99	85.07	
	Mean :				4.69	100.00	
	Significant Difference, 20 : 1 :				—	—	
Pln. L.B.I., Field Brothers D. Reaped 21.3.61 at 13.25 months. Rainfall:—59.50 inches.							
MEANS OF 5 PLOTS:	B. 52315	38.86	15.96	87.4	6.20	119.69	279
	***B. 41227**	**32.71**	**17.16**	**88.0**	**5.61**	**108.30**	
	B. 55227	33.50	16.11	87.1	5.40	104.25	
	D. 219/55	30.90	17.27	88.0	5.34	103.09	
	D. 50/54	33.41	15.93	86.1	5.32	102.70	
	B. 54193	31.71	14.85	84.9	4.71	90.93	
	D. 202/55	29.57	15.12	85.6	4.47	86.29	
	B. 53267	27.75	15.98	87.5	4.43	85.52	
	Mean :				5.18	100.00	
	Significant Difference, 20 : 1 :				.84	16.22	

***Standard Cane.**

TABLE III. (a). (Contd.)—**Results of Plant Cane Variety Trials on Demerara Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane	Purity.	Sucrose in Cane per Acre, Tons.	Sucrose in Cane per Acre, % Mean.	Trial No.
Pln. Non Pareil, Field Enterprise 10. Reaped 13.4.61 at 11.50 months. Rainfall:—61.00 inches.							
MEANS OF 5 PLOTS:	***B. 41227**	**36.62**	**16.53**	**88.3**	**6.06**	**115.87**	280
	D.B. 131/54	37.68	14.41	85.4	5.43	103.82	
	D. 7/56	35.81	14.90	85.6	5.33	101.91	
	D.B. 125/54	34.61	15.28	86.1	5.29	101.15	
	D. 278/55	31.95	16.55	84.5	5.29	101.15	
	D. 12/56	35.24	14.91	86.5	5.25	100.38	
	D. 219/55	29.97	15.90	86.6	4.77	91.20	
	D. 201/55	29.78	14.93	85.9	4.45	85.09	
	Mean:				5.23	100.00	
	Significant Difference, 20 : 1 :				.58	11.09	
Pln. Ogle, Field 61 "O". Reaped 6.4.61 at 12.25 months. Rainfall:—72.13 inches.							
MEANS OF 5 PLOTS:	***B. 41227**	**31.13**	**15.58**	**84.6**	**4.85**	**118.58**	281
	D.B. 13/54	26.72	17.21	89.1	4.60	112.47	
	D. 278/55	25.88	16.48	86.6	4.27	104.40	
	D. 239/55	29.83	13.55	81.4	4.04	98.78	
	Ragnar	22.73	17.61	86.2	4.00	97.80	
	H. 45–2860	28.05	14.24	81.8	3.99	97.55	
	D.B. 9/54	26.10	15.00	85.9	3.91	95.60	
	H. 45–2608	23.00	13.22	81.8	3.04	74.32	
	Mean:				4.09	100.00	
	Significant Difference, 20: 1:				.55	13.45	
Pln. Ogle, Field 19 Sparendaam "A". Reaped 6.9.61 at 12.25 months. Rainfall:—59.60 inches.							
MEANS OF 3 PLOTS:	D.B. 86/57	38.70	14.26	87.3	5.52	128.37	282
	D.B. 84/57	35.61	14.28	87.5	5.09	118.37	
	D.B. 76/57	39.08	12.50	84.2	4.88	113.49	
	D.B. 89/57	32.91	14.79	88.6	4.87	113.26	
	D.B. 77/57	36.58	13.06	89.0	4.78	111.16	
	D.B. 87/57	36.21	12.35	85.5	4.47	103.95	
	D.B. 83/57	32.69	13.62	88.5	4.45	103.49	
	D.B. 74/57	34.70	12.14	84.4	4.21	97.91	
	***B. 41227**	**34.85**	**11.98**	**84.4**	**4.17**	**96.98**	
	D.B. 91/57	35.63	11.46	81.4	4.08	94.88	
	D.B. 73/57	31.67	11.42	82.5	3.61	83.95	
	D.B. 71/57	28.22	12.67	84.7	3.58	83.26	
	D.B. 78/57	39.03	9.12	75.0	3.56	82.79	
	D.B. 72/57	28.68	10.33	80.8	**2.96**	68.84	
	Mean:				4.30	100.00	
	Significant Difference, 20: 1:				1.05	24.42	

***Standard Cane.**

TABLE III. (a). (Contd.)—**Results of Plant Cane Variety Trials on Demerara Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Trial No.
					Tons.	% Mean.	
Pln. Ogle, Field 19 Sparendaam "B". Reaped 6.9.61 at 12.25 months. Rainfall:—59.60 inches.							
MEANS OF 3 PLOTS:	D.B. 103/57	42.96	12.10	82.8	5.20	124.70	283
	D.B. 101/57	45.27	11.47	85.0	5.20	124.70	
	D.B. 98/57	38.20	12.69	85.4	4.85	116.31	
	D.B. 95/57	34.23	13.92	89.1	4.76	114.15	
	D.B. 99/57	43.44	10.96	82.1	4.76	114.15	
	D.B. 96/57	35.03	12.79	85.1	4.48	107.43	
	D.B. 100/57	37.84	10.67	81.9	4.04	96.88	
	D.B. 194/57	38.55	10.45	80.5	4.03	96.64	
	D.B. 93/57	32.19	12.24	84.8	3.94	94.48	
	D.B. 92/57	32.01	12.29	83.9	3.93	94.24	
	D.B. 196/57	37.75	10.34	79.1	3.91	93.76	
	D.B. 193/57	35.12	11.10	78.9	3.90	93.53	
	D.B. 97/57	33.97	11.15	83.6	3.79	90.89	
	***B. 41227**	**33.57**	**11.17**	**78.4**	**3.75**	**89.93**	
	D.B. 104/57	31.73	11.55	84.4	3.66	87.77	
	D.B. 94/57	30.75	11.88	85.6	3.65	87.53	
	D.B. 195/57	32.71	11.14	82.3	3.64	87.29	
	D.B. 102/57	32.21	10.86	83.8	3.50	83.93	
	Mean:				4.17	100.00	
	Significant Difference, 20:1:				.80	19.18	
Pln. Ogle, Field 19 Sparendaam "C". Reaped at 6.9.61 at 12.25 months. Rainfall:—59.60 inches.							
MEANS OF 3 PLOTS:	***B. 41227**	**36.55**	**11.45**	**80.5**	**4.19**	**132.59**	284
	D.B. 173/57	32.42	12.86	86.3	4.17	131.96	
	D.B. 125/57	32.03	11.11	80.6	3.56	112.66	
	D.B. 171/57	30.10	11.33	81.5	3.41	107.91	
	D.B. 168/57	29.21	11.19	80.3	3.27	103.48	
	D.B. 167/57	27.93	11.65	83.7	3.25	102.85	
	D.B. 175/57	26.12	12.08	84.9	3.15	99.68	
	D.B. 124/57	30.71	10.27	79.3	3.15	99.68	
	D.B. 120/57	26.43	11.47	83.4	3.03	95.89	
	D.B. 121/57	26.83	11.02	80.6	2.96	93.67	
	D.B. 164/57	25.77	11.17	80.6	2.88	91.14	
	D.B. 122/57	28.06	10.12	77.6	2.84	89.87	
	D.B. 126/57	23.93	9.71	78.1	2.32	73.42	
	D.B. 123/57	21.01	9.80	81.9	2.06	65.19	
	Mean				3.16	100.00	
	Significant Difference, 20:1:				.67	21.20	
Pln. Ogle, Field 19 Sparendaam "D". Reaped at 6.9.61 at 12.25 months. Rainfall:—59.60 inches.							
MEANS OF 3 PLOTS:	D.B. 198/57	35.74	12.19	83.2	4.36	123.51	285
	***B. 41227**	**40.79**	**10.54**	**80.9**	**4.30**	**121.81**	
	D.B. 199/57	38.42	10.87	82.6	4.18	118.41	
	D.B. 145/57	36.56	10.69	78.6	3.91	110.76	
	D.B. 143/57	34.62	10.89	81.7	3.77	106.80	
	D.B. 137/57	34.39	10.94	84.4	3.76	106.52	
	D.B. 203/57	31.95	11.67	82.2	3.73	105.67	
	D.B. 197/57	36.68	9.90	80.1	3.63	102.83	
	D.B. 206/57	34.50	10.38	83.8	3.58	101.42	
	D.B. 136/57	30.39	10.97	82.9	3.33	94.33	
	D.B. 134/57	30.66	10.84	81.7	3.32	94.05	
	D.B. 201/57	28.11	10.71	78.9	3.01	85.27	
	D.B. 144/57	27.06	10.36	81.5	2.80	79.32	
	D.B. 142/57	29.02	9.10	77.4	2.64	74.79	
	D.B. 139/57	25.78	10.11	82.6	2.61	73.94	
	Mean:				3.53	100.00	
	Significant Difference, 20:1:				.87	24.65	

* **Standard Cane.**

TABLE III. (a). (Contd.)—**Results of Plant Cane Variety Trials on Demerara Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Trial No.
					Tons.	% Mean.	
Pln. Ogle, Field 38.0. Reaped 22.11.61 at 12.00 months. Rainfall:—64.02 inches.							
MEANS OF 5 PLOTS:	***B. 41227**	**37.48**	**15.46**	**90.0**	**5.80**	**120.33**	286
	B. 5780	36.09	14.28	85.7	5.15	106.85	
	B. 5788	35.42	14.06	87.4	4.98	103.32	
	D.B. 77/54	36.64	13.33	86.8	4.88	101.24	
	B. 55228	32.38	14.03	88.4	4.54	94.19	
	D.B 68/54	29.02	15.55	87.1	4.51	93.57	
	B. 5784	30.77	14.22	87.4	4.38	90.87	
	D.B. 197/54	32.12	13.54	84.3	4.35	90.25	
	Mean :				4.82	100.00	
	Significant Difference, 20 : 1 :				.75	15.56	
Pln. Ruimveldt, Field 47 North. Reaped 3.8.61 at 14.25 months. Rainfall:—106.04 inches.							
MEANS OF 4 PLOTS:	B. 54142	34.10	12.78	87.5	4.35	115.38	287
	D.B. 5/55	29.14	13.47	87.8	3.92	103.98	
	***B. 41227**	**30.61**	**12.31**	**82.4**	**3.77**	**100.00**	
	D. 19/56	27.81	13.53	85.1	3.76	99.73	
	D. 26/56	28.68	12.87	85.4	3.69	97.88	
	D.B. 6/55	28.01	12.86	88.1	3.60	95.49	
	B. 56102	26.83	13.26	87.2	3.56	94.43	
	B. 5411	28.75	12.18	86.8	3.50	92.84	
	Mean :				3.77	100.00	
	Significant Difference, 20 : 1 :				—	—	
Pln. Uitvlugt, Field Zeelugt E 43. Reaped 6.12.61 at 13.00 months. Rainfall :—89.56 inches.							
MEANS OF 5 PLOTS:	***B. 41227**	**46.37**	**12.79**	**84.6**	**5.93**	**136.64**	288
	D.B. 77/54	45.34	11.64	83.5	5.28	121.65	
	D.B. 6/54	43.81	11.80	83.9	5.17	119.12	
	B. 55228	41.77	11.89	84.1	4.97	114.52	
	B. 55227	36.04	13.01	84.5	4.69	108.06	
	D.B. 197/54	34.85	11.85	81.9	4.13	95.16	
	D.B. 83/54	24.17	9.97	77.5	2.41	55.53	
	D.B. 68/54	17.20	12.45	82.8	2.14	49.31	
	Mean :				4.34	100.00	
	Significant Difference, 20 : 1 :				.78	17.97	

* **Standard Cane.**

TABLE III. (b).—**Results of Plant Cane Variety Trials on Berbice Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane	Purity.	Sucrose in Cane per Acre. Tons.	Sucrose in Cane per Acre. % Mean.	Trial No.
	Pln. Albion, Field 70 A. Reaped 11.4.61 at 11.50 months. Rainfall:—65.48 inches.						
MEANS OF 5 PLOTS:	B. 55227	39.38	17.30	86.2	6.81	111.46	289
	***B. 41227**	**37.20**	**18.26**	**89.2**	**6.79**	**111.13**	
	B. 5660	33.54	19.76	92.5	6.63	108.51	
	B. 5452	35.17	17.69	87.9	6.22	101.80	
	H. 45–2860	38.49	15.91	82.0	6.12	100.16	
	Ragnar	30.60	19.57	90.5	5.99	98.04	
	D. 248/55	34.51	15.12	83.0	5.22	85.43	
	D. 239/55	33.99	15.09	82.4	5.13	83.96	
	Mean :				6.11	100.00	
	Significant Difference, 20: 1:				.70	11.46	
	Pln. Blairmont, Field H.P. 8. Reaped 12.4.61 at 11.00 months. Rainfall:—57.58 inches.						
MEANS OF 5 PLOTS:	***B. 41227**	**35.26**	**18.39**	**90.9**	**6.49**	**119.52**	290
	B. 56102	35.45	18.06	89.5	6.40	117.86	
	D.B. 125/54	32.60	16.70	91.4	5.44	100.18	
	B. 5463	33.23	16.35	84.6	5.43	100.00	
	D.B. 9/54	29.46	18.46	91.2	5.42	99.82	
	B. 54172	27.24	17.81	90.0	4.85	89.32	
	D. 203/55	29.73	15.93	87.2	4.74	87.29	
	D. 195/55	28.06	16.75	87.4	4.70	86.56	
	Mean:				5.43	100.00	
	Significant Difference, 20: 1:				.84	15.47	
	Pln. Rose Hall, Field L. 26 A. 59. Reaped 28.3.61 at 11.00 months. Rainfall:—62.45 inches.						
MEANS OF 5 PLOTS:	***B. 41227**	**40.86**	**17.20**	**87.5**	**7.03**	**112.30**	291
	B. 53218	42.82	15.89	84.4	6.80	108.63	
	D. 249/55	39.58	16.76	86.7	6.63	105.91	
	B. 5660	37.10	17.20	87.2	6.38	101.92	
	D.B. 162/55	38.81	16.38	86.3	6.36	101.60	
	Ragnar	35.24	17.83	85.4	6.28	100.32	
	D.B. 10/55	35.52	15.10	86.6	5.36	85.62	
	B. 54237	33.76	15.62	81.4	5.27	84.19	
	Mean :				6.26	100.00	
	Significant Difference, 20 : 1 :				.67	10.70	

*** Standard Cane.**

TABLE III. (c).—Results of Plant Cane Variety Trials on Pegassy Clay.

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre. Tons.	Sucrose in Cane per Acre. % Mean.	Trial No.
Pln. Diamond, Field G.G. 29 W. "A". Reaped 7.9.61 at 14.75 months. Rainfall:—101.61 inches.							
MEANS OF 4 PLOTS:	D.B. 63/56	45.40	14.60	89.3	6.63	157.86	292
	D.B. 136/56	36.33	15.41	87.5	5.60	133.33	
	***B. 41227**	**37.84**	**14.46**	**86.9**	**5.47**	**130.24**	
	D.B. 44/56	36.08	14.73	86.5	5.31	126.43	
	D.B. 58/56	34.82	13.37	87.2	4.65	110.71	
	D.B. 137/56	33.60	13.24	84.1	4.45	105.95	
	D.B. 166/56	29.88	14.40	86.2	4.30	102.38	
	D.B. 100/56	27.29	15.65	84.7	4.27	101.67	
	D.B. 134/56	27.48	15.36	87.8	4.22	100.48	
	D.B. 119/56	28.45	12.98	84.1	3.69	87.86	
	D.B. 72/56	29.64	12.00	83.9	3.56	84.76	
	D.B. 38/56	26.74	12.38	86.2	3.31	78.81	
	D.B. 188/56	25.51	12.72	84.7	3.24	77.14	
	D.B. 2/56	21.56	13.70	81.9	2.95	70.24	
	D.B. 169/56	21.24	13.39	83.3	2.84	67.62	
	D.B. 167/56	25.72	10.71	81.2	2.75	65.48	
	Mean :				4.20	100.00	
	Significant Diff rence, 20:1 :				1.22	29.05	
Pln. Diamond, Field G.G. 29 W. "B". Reaped 7.9.61 at 14.75 months. Rainfall:—101.61 inches.							
MEANS OF 4 PLOTS:	B. 5788	33.72	15.23	87.4	5.13	151.33	293
	B. 5780	32.46	14.23	88.2	4.62	136.28	
	B. 5782	30.34	14.72	88.0	4.46	131.56	
	***B. 41227**	**28.35**	**14.32**	**85.3**	**4.06**	**119.76**	
	B. 5755	25.70	14.44	87.6	3.71	109.44	
	B. 57143	25.72	13.22	83.3	3.40	100.29	
	B. 5718	22.64	12.01	84.1	2.72	80.24	
	B. 57118	20.60	11.27	82.4	2.32	68.44	
	B. 5751	14.57	14.16	88.2	2.06	60.77	
	D. 239/55	11.82	12.47	84.8	1.47	43.36	
	Mean:				3.39	100.00	
	Significant Difference, 20: 1:				1.07	31.56	

*Standard Cane.

TABLE III. (c). (Contd.)—**Results of Plant Cane Variety Trials on Pegassy Clay.**

	Variety.	Cane per Acre, Tons	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Trial No.
					Tons.	% Mean.	
Pln. Diamond, Field G.G. 29 W. "C". Reaped 7.9.61 at 14.75 months. Rainfall:—101.61 inches.							
MEANS OF 4 PLOTS:	B. 5779	37.20	16.15	91.7	6.01	148.39	294
	B. 5794	36.71	16.01	89.8	5.87	144.94	
	B. 5759	38.20	14.18	86.5	5.42	133.83	
	B. 57174	34.25	15.74	90.6	5.39	133.09	
	B. 57138	33.80	15.60	89.8	5.27	130.12	
	B. 5772	38.98	12.65	83.8	4.93	121.73	
	***B. 41227**	**34.68**	**13.39**	**85.1**	**4.64**	**114.57**	
	B. 57152	28.87	12.13	80.6	3.50	86.42	
	B. 57125	24.40	14.01	87.7	3.42	84.44	
	B. 57104	32.36	10.54	81.5	3.41	84.20	
	B. 5706	28.23	11.96	85.4	3.38	83.46	
	D.B. 7/56	23.71	13.01	85.4	3.08	76.05	
	B. 57173	23.05	12.83	85.8	2.95	72.84	
	B. 5703	22.44	12.13	85.9	2.72	67.16	
	B. 5749	17.00	14.34	87.5	2.44	60.25	
	B. 5717	16.14	14.95	89.4	2.41	59.51	
	Mean :				4.05	100.00	
	Significant Difference, 20 : 1 :				.97	23.95	
Pln. Diamond, Field G.G. 29 W. "D". Reaped 7.9.61 at 14.75 months. Rainfall:—101.61 inches.							
MEANS OF 4 PLOTS:	B. 5736	38.07	15.38	87.6	5.85	135.10	295
	***B. 41227**	**35.93**	**14.41**	**85.0**	**5.17**	**119.40**	
	B. 57124	32.19	15.30	90.2	4.93	113.86	
	B. 5686 "B"	31.77	14.23	84.4	4.52	104.39	
	B. 5747	34.91	12.70	82.8	4.43	102.31	
	B. 57109	31.09	13.65	87.3	4.24	97.92	
	B. 5762	27.53	14.86	87.0	4.09	93.53	
	B. 5796	26.37	14.96	89.7	3.94	90.99	
	B. 57166	27.89	12.49	82.4	3.48	80.37	
	B. 57145	19.24	13.81	87.0	2.65	61.20	
	Mean :				4.33	100.00	
	Significant Difference, 20 : 1 :				1.07	24.71	
Pln. Leonora, Field L. 65. Reaped 11.9.61 at 14.75 months. Rainfall:—108.35 inches.							
MEANS OF 5 PLOTS:	B. 5490	45.71	14.00	89.4	6.40	116.58	296
	D. 44/52	38.56	15.39	89.1	5.93	108.01	
	D. 26/52	39.44	14.81	91.7	5.84	106.38	
	D. 50/54	43.63	12.98	87.6	5.66	103.10	
	***B. 41227**	**44.99**	**12.49**	**84.4**	**5.62**	**102.37**	
	D.B. 131/54	42.94	11.50	84.0	4.94	91.48	
	D.B. 9/54	42.48	11.27	82.0	4.79	87.25	
	D. 201/55	38.76	12.33	88.3	4.78	87.07	
	Mean:				5.49	100.00	
	Significant Difference, 20: 1:				—	—	

* **Standard Cane.**

TABLE IV. (a). —Results of First Ratoon Variety Trials on Demerara Frontland Clay.

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity	Sucrose in Cane per Acre.		Combined results for 2 Crops, Plants and 1st Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane per Acre. Tons.	
	Sophia, Field 8 West "B". Reaped 18.4.61 at 11.50 months. Rainfall:—85.26 inches.								
MEANS OF 5 PLOTS :	D. 26/52	37.00	16.94	91.8	6.27	118.75	D. 278/55	12.52	244
	***B. 41227**	**38.78**	**15.88**	**88.9**	**6.16**	**116.67**	***B. 41227**	**12.35**	
	D. 278/55	36.72	16.23	88.3	5.97	113.07	D. 26/52	12.11	
	D. 238/55	39.34	14.70	88.2	5.78	109.47	D. 238/55	11.42	
	D. 239/55	36.29	14.82	84.9	5.38	101.89	D.B. 131/54	10.83	
	D.B. 131/54	33.99	15.52	89.7	5.28	100.00	H. 37-1933	10.72	
	H. 37-1933	37.93	13.52	81.6	5.13	97.16	D. 239/55	10.33	
	D. 49/54	35.70	14.03	87.2	5.01	94.89	N.Co. 300	10.09	
	N.Co. 300	30.24	16.31	88.8	4.93	93.37	Q. 56	9.10	
	Q. 56	30 63	15.23	87.7	4.66	88.26	Eros	9.02	
	Eros	23.97	14.53	88.5	3.48	65.91	D. 49/54	8.49	
	Mean:				5.28	100.00			
	Significant Difference, 20 : 1 :				.89	16.85			
	Sophia, Field 8 West "A". Reaped 19.4.61 at 11.50 months. Rainfall:—85.23 inches.								
MEANS OF 5 PLOTS :	D.B. 9/55	41.81	16.80	90.5	7.02	116.81	***B. 41227**	**12.57**	245
	***B. 41227**	**42.48**	**16.37**	**89.6**	**6.95**	**115.64**	D.B. 162/55	12.41	
	D.B. 162/55	38.39	17.49	88.2	6.71	111.65	D.B. 57/55	12.38	
	D.B. 57/55	39.52	16.37	88.1	6.47	107.65	D.B. 5/55	12.23	
	D.B. 6/55	39.45	16.35	90.5	6.45	107.32	D.B. 9/55	11.82	
	D.B. 5/55	38.56	16.28	89.8	6.27	104.33	D.B. 6/55	11.78	
	D.B. 10/55	41.78	13.95	85.3	5.83	97.00	D.B. 10/55	10.26	
	D.B. 166/55	34.54	15.82	89.3	5.46	90.85	D.B. 33/55	10.03	
	D.B. 33/55	34.13	15.65	85.9	5.34	88.86	D.B. 154/55	9.76	
	D.B. 101/55	36.46	13.22	84.1	4.84	80.53	D.B. 101/55	9.52	
	D.B. 154/55	38.06	12.39	84.1	4.72	78.54	D.B. 166/55	9.33	
	Mean:				6.01	100.00			
	Significant Difference; 20 : 1:				1.06	17.64			
	Sophia, Field 8 East "C". Reaped 4.5.61 at 11.50 months. Rainfall:—84.15 inches.								
MEANS OF 5 PLOTS :	***B. 41227**	**33.67**	**17.05**	**92.4**	**5.74**	**117.62**	***B. 41227**	**11.38**	248
	D.B. 7/54	36.07	15.58	89.7	5.62	115.16	D.B. 7/54	10.79	
	B. 52158	35.50	14.78	89.1	5.25	107.58	D. 50/54	10.36	
	D. 50/54	33.53	14.61	89.7	4.90	100.41	B. 52158	10.05	
	B. 52107	28.80	15.01	90.3	4.32	88.52	B. 52107	9.86	
	D. 201/55	28.71	11.94	82.9	3.43	70.29	D. 201/55	7.92	
	Mean:				4.88	100.00			
	Significant Difference, 20 : 1 :				.68	13.93			

* **Standard Cane.**

TABLE IV. (a) (Contd.)— **Results of First Ratoon Variety Trials on Demerara Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity	Sucrose in Cane per Acre. Tons.	Sucrose in Cane per Acre. % Mean.	Combined results for 2 Crops, Plants and 1st Ratoons. Variety.	Combined results for 2 Crops, Plants and 1st Ratoons. Sucrose in Cane per Acre, Tons.	Trial No.
	Sophia, Field 8 East "B". Reaped 5.5.61 at 12.00 months. Rainfall:—84.38 inches.								
MEANS OF 5 PLOTS:	***B. 41227**	**33.51**	**17.08**	**90.3**	**5.72**	**139.17**	***B. 41227**	**12.21**	247
	B. 57156	28.97	15.76	88.4	4.53	110.22	B. 57156	9.95	
	B. 5718	30.70	14.66	88.7	4.50	109.49	B. 5718	9.95	
	B. 5751	22.17	15.48	91.3	3.43	83.45	B. 5751	8.61	
	B. 5755	16.98	13.90	85.1	2.36	57.42	B. 5755	6.65	
	Mean :				4.11	100.00			
	Significant Difference, 20 : 1 :				1.05	25.55			
	Sophia, Field 8 East "D". Reaped 7.5.61 at 12.00 months. Rainfall:—84.55 inches.								
MEANS OF 5 PLOTS:	B. 54281	37.56	16.51	92.2	6.20	126.02	D.B. 9/54	13.06	249
	D.B. 9/54	36.60	15.63	92.0	5.72	116.26	B. 54281	12.94	
	B. 5490	31.89	16.99	92.1	5.42	110.16	B. 5490	11.87	
	D.B. 13/54	36.65	16.90	90.7	5.18	105.28	D.B. 125/54	11.59	
	***B. 41227**	**31.12**	**16.64**	**90.3**	**5.18**	**105.28**	***B. 41227**	**11.40**	
	D.B. 6/54	34.58	14.93	91.7	5.16	104.88	B. 5411	11.12	
	C.C. 102	35.97	14.15	89.7	5.09	103.46	D.B. 6/54	10.90	
	B. 5411	30.43	16.22	93.2	4.94	100.41	D.B. 13/54	10.81	
	D.B. 125/54	31.08	15.73	90.9	4.89	99.39	B. 54277	10.58	
	B. 54277	29.49	16.38	92.8	4.83	98.17	C.C. 102	10.40	
	D.B. 80/54	29.83	15.52	89.5	4.63	94.11	D.B. 80/54	10.02	
	D.B. 77/54	26.43	16.44	91.6	4.34	88.21	Eros	9.25	
	D.B. 68/54	25.36	15.70	90.3	3.98	80.89	D.B. 77/54	9.17	
	Eros	24.16	13.90	88.8	3.36	68.29	D.B. 68/54	8.60	
	Mean:				4.92	100.00			
	Significant Difference, 20: 1:				.80	16.26			
	Sophia, Field 14 West "A". Reaped 13.9.61 at 12.00 months. Rainfall:—76.17 inches.								
MEANS OF 5 PLOTS:	D.B. 85/53	50.11	13.80	88.0	6.92	120.56	Co. 775	13.92	250
	D.B. 205/53	48.65	13.28	84.0	6.46	112.54	D.B. 85/53	13.19	
	***B. 41227**	**47.97**	**13.12**	**85.9**	**6.29**	**109.59**	D.B. 205/53	13.12	
	Co. 775	45.12	13.44	84.7	6.06	105.57	***B. 41227**	**12.96**	
	D.B. 172/53	40.76	14.68	90.4	5.98	104.18	D.B. 172/53	12.24	
	D.B. 255/53	43.64	13.51	87.0	5.89	102.61	D.B. 255/53	12.24	
	Co. 678	53.38	10.78	79.9	5.75	100.17	Vesta	11.65	
	Vesta	44.20	12.72	85.5	5.62	97.91	Ragnar	11.27	
	Ragnar	35.06	15.22	88.9	5.34	93.03	Co. 678	10.87	
	Co. 991	36.50	12.77	85.6	4.66	81.18	Co. 991	9.52	
	Co. 475	27.39	15.25	89.2	4.18	72.82	Co. 475	9.01	
	Mean :				5.74	100.00			
	Significant Difference, 20 : 1 :				.69	12.02			

* **Standard Cane.**

TABLE IV. (a) (Contd.)—**Results of First Ratoon Variety Trials on Demerara Frontland Clay.**

	Variety.	Cane. per Acre, Tons.	Pol. % Cane	Purity.	Sucrose in Cane per Acre.		Combined results for 2 Crops, Plants, and 1st Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane, per Acre Tons.	
	Sophia, Field 1 West "A". Reaped 19.9.61 at 11.25 months.								
	Rainfall :—75.92 inches.								
MEANS OF 4 PLOTS:	B. 5452	41.66	14.21	87.1	5.92	120.82	B. 5452	11.78	252
	N.Co. 300	42.23	13.61	87.6	5.75	117.35	N.Co. 300	11.61	
	***B. 41227**	**39.15**	**13.04**	**85.3**	**5.10**	**104.08**	***B. 41227**	**11.49**	
	F. 31–436	33.21	14.77	88.3	4.90	100.00	D.B. 205/53	11.47	
	D.B. 205/53	36.26	13.24	86.8	4 80	97.96	F. 31–436	10.02	
	C.P. 44–155	23.09	12.77	83.5	2.95	60.20	C.P. 44–155	7.77	
	Mean:				4.90	100.00			
	Significant Difference, 20: 1:				1.05	21.43			
	Sophia, Field 1 West "B". Reaped 15.9.61 at 11.25 months.								
	Rainfall :—77.30 inches.								
MEANS OF 5 PLOTS:	***B. 41227**	**39.01**	**15.21**	**90.0**	**5.93**	**136.32**	***B. 41227**	**11.98**	251
	D. 201/55	34.81	14.63	88.2	5.09	117.01	B. 52158	10.29	
	B. 52158	35.94	13.89	86.8	4.99	114.71	D. 201/55	10.15	
	H. 37–1933	31.69	13.55	88.9	4.29	98.62	P.R. 1000	9.64	
	P.R. 1000	30.22	14.13	88.6	4.27	98.16	H. 37–1933	8.86	
	H. 44–3098	29.45	13.72	89.1	4 04	92.87	H. 44–3098	8.86	
	Q. 56	26.14	14.60	90.9	3.82	87.82	Q. 56	8.67	
	N.Co. 310	15.73	14.90	87.9	2.34	53.79	N.Co. 310	6.38	
	Mean :				4.35	100.00			
	Significant Difference, 20 : 1 :				1.10	25.29			
	Sophia, Field 15 East. Reaped 25.10.61 at 11.00 months.								
	Rainfall :—72.97 inches.								
MEANS OF 5 PLOTS:	B. 54142	44.51	14.78	87.6	6.58	121.85	B. 54142	14.18	253
	B. 5490	40 78	15.21	89.4	6 20	114.81	B. 53227	13.90	
	***B. 41227**	**39.04**	**15.68**	**89.1**	**6.12**	**113.33**	***B. 41227**	**13.86**	
	B. 51131	38.63	15.64	91.1	6.04	111.85	D. 26/52	13.71	
	B. 53227	41.72	14.41	87.5	6.01	111.30	B. 54277	13.68	
	B. 54277	39.04	15.12	86.6	5.90	109.26	B 51131	13.58	
	D. 26/52	35.69	16.33	90.4	5.83	107.96	B. 5490	13 31	
	D.B. 85/53	46.34	12.30	82.8	5.70	105.56	B. 54262	12.58	
	D. 50/54	39.02	13.71	85.2	5.35	99 07	B. 54163	12.26	
	D. 49/54	36.92	13.88	84.5	5.12	94.81	D. 50/54	12.12	
	B. 54262	37.48	13.34	86.8	5.00	92.59	D.B. 85/53	11.29	
	B. 54163	34.92	13.98	87.2	4.88	90 37	D. 49/54	10.55	
	P.R. 905	22.60	15.78	90.7	3 57	66.11	P.R. 905	8.72	
	P.R. 1000	26.58	12.23	84.2	3.25	60.19	P.R. 1000	8.66	
	Mean :				5.40	100.00			
	Significant Difference, 20 : 1 :				.85	15.74			

***Standard Cane.**

TABLE IV. (a) (Contd.)— **Results of First Ratoon Variety Trials on Demerara Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre. Tons.	Sucrose in Cane per Acre. % Mean.	Combined results for 2 Crops. Plants and 1st Ratoons. Variety.	Combined results for 2 Crops. Plants and 1st Ratoons. Sucrose in Cane per Acre, Tons.	Trial No.
	Pln. L.B.I., Field 36 A. Reaped 20.9.61 at 11.75 months. Rainfall:—52.69 inches.								
MEANS OF 5 PLOTS:	D. 26/52	38.81	14 90	87.9	5.78	161.90	D. 26/52	13.56	254
	D. 49/46	43.08	12.71	82.7	5.48	153.50	D. 49/46	12.38	
	Eros	40.21	13.11	84.1	5.27	147.62	*B. 41227	11.77	
	***B. 41227**	**39 44**	**13.28**	**85.4**	**5.24**	**146.78**	Eros	11.06	
	B. 52316	36.91	12.57	83.6	4.64	129.97	B. 52316	10.45	
	B. 46364	31.63	13.06	84 2	4.13	115.69	B. 50275	10.07	
	B. 50275	32.90	12.04	84.9	3.96	110.92	D. 245/55	9.26	
	D. 245/55	27.62	12.06	83.9	3.33	93.28	B. 46364	8.93	
	B. 5098	28.00	11.63	81.9	3.26	91.32	B. 5098	8.62	
	Mean :				3.57	100.00			
	Significant Difference, 20 : 1 :				.57	16.41			
	Pln. Non Pareil, Field V. 2. Reaped 4.10.61 at 13.00 months. Rainfall :—52.38 inches.								
MEANS OF 5 PLOTS:	D.B. 80/54	44.52	11.82	78.9	5.26	116.63	D.B. 197/54	10.03	255
	D. 214/55	38.62	13.35	82.8	5.15	114.19	D.B. 80/54	9 87	
	D.B. 197/54	41.58	11.87	79.5	4.94	109.53	D. 214/55	9.78	
	D. 201/55	38.11	12.77	81.4	4.87	107.98	D. 201/55	9.58	
	D.B. 81/54	39.67	11.22	77.4	4.45	98.67	D.B. 81/54	9.39	
	D.B. 83/54	37.08	11.41	77.5	4.23	93.79	***B. 41227**	**9.36**	
	***B. 41227**	**34.54**	**11.32**	**77.2**	**3.91**	**86.70**	D. 202/55	8.52	
	D. 202/55	27.34	12.00	79.8	3.28	72.73	D.B. 83/54	8.35	
	Mean :				4.51	100.00			
	Significant Difference, 20 : 1 :				.87	19.29			
	Pln. Ogle, Field C.L. 36 L.S. Reaped 12.12.61 at 1300 monthn. Rainfall :—66.60 inches.								
MEANS OF 5 PLOTS:	B. 54277	40.62	13.74	87.0	5.58	130.68	B. 54277	12.21	256
	H. 38–2915	35.73	12.92	86.5	4 62	108.20	H. 38–2915	10.12	
	***B. 41227**	**34.91**	**13.08**	**86.7**	**4 57**	**107.03**	***B. 41227**	**9.72**	
	B. 53227	32 54	13.07	85.8	4.25	99.53	B. 53227	9.55	
	D. 26/52	29.75	14.28	87.1	4.25	99.53	D. 26/52	9.45	
	H. 39–7028	34.61	12 12	84.7	4.20	98.36	H. 39–7028	8.18	
	B. 54237	26.48	12.76	84.8	3.38	79.16	Co. 991	7.73	
	Co. 991	28.22	11.62	82.6	3.28	76.81	B. 54237	7.59	
	Mean :				4.27	100.00			
	Significant Difference, 20 : 1 :				.84	19.67			

***Standard Cane.**

TABLE IV (b).—**Results of First Ratoon Variety Trials on Berbice Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Combined results for 2 Crops, Plants and 1st Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane per Acre, Tons.	
	Pln. Albion, Field Belvedere 46. Reaped 30.9.61 at 12.25 months. Rainfall :— 67.57 inches.								
MEANS OF 5 PLOTS:	B. 50267	48.75	12.49	82.5	6.09	119.41	D.B. 5/55	13.08	257
	D.B. 5/55	44.59	12.34	82.2	5.50	107.84	***B. 41227**	**13.02**	
	D.B. 154/55	41.86	12.81	83.1	5.36	105.10	D.B. 9/55	12.92	
	D.B. 6/55	38.83	13.17	83.1	5.11	100.20	D.B. 6/55	12.55	
	***B. 41227**	**40.78**	**12.40**	**82.3**	**5.06**	**99.22**	B. 50267	12.42	
	D.B. 9/55	34.96	13.88	86.9	4.85	95.10	D.B. 154/55	11.13	
	D.B. 166/55	34.68	13.58	85.1	4.71	92.35	D.B. 166/55	10.63	
	D.B. 13/35	35.95	11.51	80.1	4.14	81.18	D.B. 13/35	10.48	
	Mean:				5.10	100.00			
	Significant Difference, 20: 1:				—	—			
	Pln. Blairmont, Field R.P.3. Reaped 21.9.61 at 11.25 months. Rainfall :—70.83 inches.								
MEANS OF 5 PLOTS.	D. 141/46	42.55	15.07	89.9	6.41	116.33	D. 141/46	12.76	258
	B. 50135	42.84	13.79	86.5	5.91	107.26	B. 50135	12.26	
	B. 47258	38.94	14.84	87.6	5.78	104.90	B. 47258	11.86	
	D. 26/52	40.70	13.84	86.4	5.63	102.18	D. 26/52	11.60	
	B. 51131	35.93	15.43	89 0	5.55	100.73	B. 51131	11.46	
	***B. 41227**	**38.82**	**13.09**	**86.1**	**5.08**	**92.20**	***B. 41227**	**11.18**	
	C.P. 44-101	32.27	15.06	87.6	4.86	88.20	C.P. 44-101	10.73	
	B. 37161	36.90	13.10	84.1	4.83	87.66	B. 37161	10.10	
	Mean :				5.51	100.00			
	Significant Difference, 20: 1:				.78	14.16			
	Pln. Rose Hall, Field Prosmyra 7. Reaped 4.10.61 at 10.75 months. Rainfall :—58.41 inches.								
MEANS OF 5 PLOTS:	***B. 41227**	**39.16**	**15.35**	**85.7**	**6.01**	**112.13**	***B. 41227**	**12.89**	263
	D.B. 33/55	41.22	14.47	84.7	5.96	111.19	D. 278/55	12.62	
	D. 239/55	43.71	13.50	81.4	5.90	110.07	D. 239/55	12.53	
	D. 278/55	33.05	16 49	92.2	5.45	101.68	D.B. 33/55	12.27	
	D. 219/55	31.61	15.99	87.1	5.05	94.22	D. 219/55	11.12	
	D.B. 57/55	31.15	15.83	86.2	4.93	91.98	D B. 57/55	10.85	
	D. 238/55	38.08	12.66	82.1	4.82	89.93	D. 236/55	10 67	
	D. 236/55	32.82	14.52	84.0	4.77	88.99	D. 238/55	10.55	
	Mean:				5.36	100.00			
	Significant Difference, 20: 1:				—	—			

*** Standard Cane.**

TABLE IV. (b) (Contd.)—Results of First Ratoon Variety Trials on Berbice Frontland Clay.

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Combined results for 2 Crops, Plants and 1st Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane per Acre. Tons.	
Pln. Rose Hall, Field Lot 26 A. 59. Reaped 20.12.61 at 8.75 months. Rainfall :—53.56 inches.									
MEANS OF 5 PLOTS:	B. 53218	34.82	13.77	83.1	4.80	113.21	B. 53218	11.60	291
	D. 249/55	31.94	14.45	85.3	4.62	108.96	***B. 41227**	**11.59**	
	***B. 41227**	**29.70**	**15.35**	**87.1**	**4.56**	**107.55**	D. 249/55	11.25	
	D.B. 162/55	27.86	15.54	86.9	4.33	102.12	D.B. 162/55	10.69	
	Ragnar	27.70	15.52	83.6	4.30	101.41	Ragnar	10.58	
	D.B. 10/55	32.23	13.29	84.5	4.28	100.94	B. 5660	10.54	
	B. 5660	28.34	14.69	86.1	4.16	98.11	D.B. 10/55	9.64	
	B. 54237	19.96	14.43	83.7	2.88	67.92	B. 54237	8.15	
	Mean:				4.24	100.00			
	Significant Difference, 20: 1:				.87	20.52			
Pln. Port Mourant, Field C.O.G. 24 "A". Reaped 20.2.61 at 10.75 months. Rainfall :—56.23 inches.									
MEANS OF 5 PLOTS :	B. 51116	43.76	15.38	84.4	6.73	117.04	***B. 41227**	**12.29**	259
	***B. 41227**	**41.33**	**16.16**	**87.8**	**6.68**	**116.17**	B. 51116	11.95	
	D. 26/52	34 25	16.77	87.5	5.74	99.83	D. 26/52	10.83	
	B. 53200	39.03	14.70	83.7	5.74	99.83	B. 53200	10.22	
	Co. 413	39.08	14.26	83.7	5.57	96.87	Vesta	9.59	
	Vesta	36.70	14.71	83.4	5.40	93.91	B. 51134	9.50	
	B. 51134	35.38	14.52	82.2	5.14	89.39	D.B. 76/56	9.16	
	D.B. 76/56	35.00	14.38	85.2	5.03	87.48	Co. 413	8.58	
	Mean:				5.75	100.00			
	Significant Difference, 20: 1:				.98	17.04			
Pln. Port Mourant, Field C.O.G. 24 "B". Reaped 20.2.61 at 10.75 months. Rainfall :—56.23 inches.									
MEANS OF 5 PLOTS :	B. 5124	41.49	16.45	87.3	6.83	127.90	***B. 41227**	**11.99**	260
	***B. 41227**	**40.60**	**15.80**	**88.5**	**6.41**	**120.04**	N.Co. 330	11.02	
	B. 50135	36.28	15.99	87.5	5.80	108.61	B. 5124	10.97	
	B. 51131	33.49	16.90	89.1	5.66	105.99	B. 51131	10.26	
	N.Co. 330	36.88	15.07	87 2	5.56	104.12	B. 50135	9.58	
	D.B. 169/53	30.61	16.65	88.9	5.10	95.51	D.B. 169/53	9.14	
	P.R. 1000	30.81	14.01	83.3	4.32	80.90	P.R. 1000	8.35	
	F. 31–436	29.59	11.75	75.4	3.48	65.17	F. 31–436	6.28	
	Mean :				5.34	100.00			
	Significant Difference, 20 : 1 :				1.27	23.78			

***Standard Cane.**

TABLE IV. (c).—**Results of First Ratoon Variety Trials on Pegassy Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Combined results for 2 Crops, Plants and 1st Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane per Acre. Tons.	
	Pln. Diamond, Field G.D. 116 L.S. Reaped 16.11.61 at 12.25 months. Rainfall:—76.64 inches.								
MEANS OF 5 PLOTS:	D. 26/52	42.31	15.51	89.9	6.56	160.39	D. 26/52	11.97	265
	D.B. 85/53	39.21	14.47	90.1	5.68	138.88	D.B. 7/54	9.35	
	***B. 41227**	**37.27**	**13.45**	**85.2**	**5.01**	**122.49**	***B. 41227**	**9.34**	
	D.B. 7/54	31.39	12.98	86.2	4.07	99.51	D.B. 85/53	8.87	
	B. 53227	28.39	13.96	87.9	3.96	96.82	B. 53227	7.94	
	D.B. 205/53	23.56	12.57	86.2	2.96	72.37	D.B. 172/53	5.29	
	B. 54262	17.75	13.70	88.4	2.43	59.41	D.B. 205/53	5.09	
	D.B. 172/53	16.45	12.47	86.5	2.05	50.12	B. 54262	4.91	
	Mean:				4.09	100.00			
	Significant Difference, 20:1:				.70	17.11			
	Pln. Enmore, Field B.A. 26. Reaped 15.2.61 at 11.50 months. Rainfall:— 68.08 inches.								
MEANS OF 5 PLOTS:	B. 5277	34.21	15.21	87.4	5.20	117.91	B. 5277	10.95	266
	D. 49/46	33.88	14.74	87.3	4.99	113.15	B. 5212	10.41	
	B. 52158	31.95	14.79	84.8	4.72	107.03	***B. 41227**	**10.38**	
	B. 5212	28.89	16.31	90.0	4.71	106.80	D. 49/46	10.18	
	***B. 41227**	**33.06**	**14.00**	**85.9**	**4.63**	**104.99**	B. 52158	9.68	
	B. 5452	29.58	13.80	86.8	4.08	92.52	B. 5452	9.33	
	P.R. 1000	27.50	13.99	84.8	3.85	87.30	P.R. 1000	7.22	
	N.Co. 300	22.71	13.82	84.9	3.14	71.20	N.Co. 300	6.76	
	Mean:				4.41	100.00			
	Significant Difference, 20: 1:				.61	13.83			
	Pln. Leonora, Field P.L. 54. Reaped 27.10.61 at 11.50 months. Rainfall:—60.22 inches.								
MEANS OF 5 PLOTS:	***B. 41227**	**29.13**	**14.06**	**89.3**	**4.10**	**113.26**	***B. 41227**	**9.83**	267
	B. 5277	27.21	14.27	89.2	3.89	107.46	B. 5277	9.05	
	D.B. 13/54	24.86	15.36	92.0	3.82	105.52	D. 26/52	9.05	
	D. 26/52	24.40	15.35	89.2	3.75	103.59	D.B. 13/54	8.46	
	D.B. 255/53	23.12	15.27	91.3	3.53	97.51	D. 50/54	8.10	
	D.B. 205/53	23.95	14.19	88.0	3.40	93.92	D.B. 85/53	7.24	
	D. 50/54	24.69	13.53	85.5	3.34	92.27	D.B. 255/53	6.94	
	D.B. 85/53	27.16	11.47	84.5	3.12	86.19	D.B. 205/53	6.84	
	Mean:				3.62	100.00			
	Significant Difference, 20: 1:				.55	15.19			

***Standard Cane.**

TABLE IV. (e) (Contd)—**Results of a First Ratoon Variety Trial on Pegassy Clay.**

	Variety.	Cane. per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Combined results for 2 Crops, Plants and 1st Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane per Acre. Tons.	
	Pln. Lusignan, Field G. H.W.E. 5A. Reaped 29.8.61 at 12.25 months. Rainfall:—51.84 inches.								
MEANS OF 5 PLOTS:	D. 249/55	51.39	13.66	89.6	7.02	117.79	D. 249/55	15.15	268
	B. 5490	50.44	13.63	90.7	6.88	114.09	B. 50275	14.42	
	B. 54277	49.51	13.49	87.9	6.88	114.09	B. 5490	14.14	
	B. 50275	49.38	12.49	86.5	6.37	106.88	B. 54277	14.01	
	B. 5411	42.20	13.65	88.3	5.76	96.64	B. 5411	13.56	
	***B. 41227**	**44.67**	**11.72**	**86.5**	**5.23**	**87.75**	***B. 41227**	**13.01**	
	D.B. 7/54	40.92	12 32	85.8	5.04	84.56	D.B. 7/54	11.17	
	D.B. 6/54	41.90	11.26	83.9	4.72	79.19	D.B. 6/54	10.58	
	Mean :				5.96	100.00			
	Significant Difference, 20: 1:				.70	11.74			

* **Standard Cane.**

TABLE IV. (d).—**Results of First Ratoon Variety Trials on Riverside Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre.		Combined results for 2 Crops, Plants and 1st Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane per Acre, Tons.	
	Pln. Diamond, Field G.D. 17. Reaped 16.3.61 at 11.50 months. Rainfall:—90.53 inches.								
MEANS OF 5 PLOTS.	B. 50135	45.55	14.98	88.7	6.82	130.15	B. 50135	13.58	261
	B. 53218	41.29	15.24	89.0	6.29	120.04	B. 53218	12.19	
	B. 53227	35.57	15.44	89.1	5.49	104.77	***B. 41227**	**11.31**	
	D. 238/55	40.70	13.09	86.1	5.33	101.72	B. 53227	10.58	
	B. 53200	**36.03**	13.61	84.8	4.90	93 51	D. 238/55	10.56	
	***B. 41227**	**36.76**	**13.30**	**83.9**	**4.89**	**93.32**	B. 53200	10.10	
	D.B. 169/53	27.36	16.46	91.6	4.50	85.88	B. 5352	9.74	
	B. 5398	31 06	14.49	88.2	4.50	85.88	D.B. 169/53	9.58	
	B. 5352	32.69	13.62	86.7	4.45	84.92	B. 5398	8.84	
	Mean:				5.24	100.00			
	Significant Difference, 20 :1 :				.61	11.64			
	Pln. Farm, Field C.G. 45 W. Reaped 2.11.61 at 11.50 months. Rainfall:—55.50 inches.								
MEANS OF 5 PLOTS:	D. 26/56	46.35	13.18	85.2	6.11	114.42	***B. 41227**	**14.33**	262
	B. 53227	43.67	13.11	84.1	5.73	107.30	D. 26/56	13.62	
	***B. 41227**	**42.99**	**13.10**	**85.4**	**5.63**	**105.43**	H. 38–2915	13.07	
	B. 52144	41.90	13.34	85.4	5.59	104.68	B. 53227	12.63	
	H. 38–2915	45.69	12.12	83.2	5.54	103.75	B. 52144	12.38	
	Co. 991	38.14	12.48	84.7	4.76	89.14	D. 26/52	11.45	
	D. 31/56	36.22	13.05	83.4	4.73	88.58	Co. 991	10.90	
	D. 26/52	36.44	12.71	83.1	4.63	86.70	D. 31/56	10.07	
	Mean :				5.34	100.00			
	Significant Difference, 20 : 1 :				.61	11.42			

*** Standard Cane.**

TABLE V (a).—**Results of Second Ratoon Variety Trials on Demerara Frontland Clay.**

	Variety.	Cane. per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre. Tons.	Sucrose in Cane per Acre. % Mean.	Combined results for 3 Crops, Plants, 1st and 2nd Ratoons. Variety.	Combined results for 3 Crops, Plants, 1st and 2nd Ratoons. Sucrose in Cane per Acre, Tons.	Trial No.
	Sophia, Field 13 East "A". Reaped 25.6.61 at 1200 months. Rainfall :—77.72 inches.								
MEANS OF 5 PLOTS.	B. 53227	41.48	14.65	90.2	6.08	118.98	B. 53227	19.65	225
	D.B. 85/53	49.45	11.78	84.4	5.83	114.09	*B. 41227	19.17	
	*B. 41227	40.82	13.75	87.4	5.62	109.98	D.B. 85/53	18.81	
	H. 37–1933	41.13	13.45	89.6	5.53	108.22	D.B. 255/53	18.30	
	D.B. 255/53	37.88	14.00	89.3	5.30	103.72	B. 50275	18.23	
	B. 50275	44.03	11.93	84.1	5 25	102.74	B. 51116	17.85	
	D. 53/54	43.19	11.89	84.5	5.13	100.39	P.R. 1000	17.47	
	D. 51/54	43.09	11.70	84.2	5.04	98.63	H. 37–1933	17.21	
	P.R. 1000	35.02	14.37	88.3	5.03	98.43	D. 53/54	16.32	
	B. 51116	36.87	13.36	88.5	4.93	96.48	D. 49/54	15.77	
	D. 49/54	42.92	11.45	83.0	4.91	96.09	H 44–3098	15.70	
	B. 5398	34.27	13.50	87.6	4.63	90.61	D.B. 169/53	15.24	
	H. 44–3098	35.55	12.25	84.0	4.35	85.13	D. 51/54	15.13	
	D.B. 169/53	27.75	14.35	91.8	3.98	77.89	B. 5398	14.93	
	Mean :				5.11	100.00			
	Significant difference, 20 : 1 :				.68	13.31			
	Sophia, Field 10 East "B". Reaped 29.8.61 at 12.50 months. Rainfall :—79.95 inches.								
MEANS OF 5 PLOTS :	B. 5490	39.26	14.20	89.6	5.57	117.02	B. 54142	16.89	222
	D. 249/55	38.87	13.73	88.2	5.34	112.18	B. 5490	16.35	
	B. 54142	38.68	13.61	86.6	5.26	110.50	B. 54281	15.51	
	D. 201/55	37.29	13.32	84.2	4.97	104.41	D. 201/55	15.12	
	B. 54281	36.32	13.41	87.0	4.87	102.31	B. 54262	15 08	
	B. 54277	36.40	13.36	87.6	4.86	102.10	D. 249/55	14.92	
	D. 195/55	33.48	14.52	86.4	4.86	102.10	B. 54277	14.73	
	D. 219/55	33.77	14.16	87.4	4.78	100.42	D. 202/55	14.52	
	D. 202/55	35.33	13.36	84.8	4.72	99.16	D. 195/55	14.01	
	B. 54262	35.89	12.92	87.5	4 64	97.48	D. 214/55	13.82	
	D. 214/55	33.56	13 50	88.5	4 53	95.17	*B. 41227	13.36	
	*B. 41227	34.27	13.05	86.6	4.47	93.91	D. 219/55	12.95	
	D. 180/55	26 83	14.66	88.0	3.93	82.56	B. 54215	12.02	
	B. 54215	30.02	12.75	87.2	3.83	80.46	D. 180/55	11.89	
	Mean :				4.76	100.00			
	Significant Difference, 20:1 :				.60	12.60			
	Sophia, Field 10 East "A". Reaped 1.9.61 at 12.50 months. Rainfall :—79.95 inches.								
MEANS OF 5 PLOTS :	C.P. 44–101	39 60	14 87	89.8	5.89	122.71	C.P. 44–101	17.60	223
	*B. 41227	39.97	14.25	87.2	5.69	118.54	D. 39/46	16.72	
	D. 39/46	43.15	13.15	87.1	5.68	118 33	D.B. 57/55	16.65	
	D.B. 57/55	36.88	14.87	90.4	5.48	114.17	*B. 41227	15.97	
	B. 53218	39.46	13.54	87.8	5,34	111.25	B. 53218	15.35	
	D. 278/55	32.58	14.81	86.9	4.82	100.42	B. 46364	14.93	
	B. 46364	35.98	13.15	89.2	4.73	98.54	D. 53/54	14.92	
	D. 50/54	31.55	13.66	85.9	4.31	89.79	D. 278/55	14 68	
	D. 53/54	38.72	11.10	82.0	4 30	89.58	D. 50/54	14.56	
	Q. 56	28.96	14.75	89.3	4.27	88 96	H. 38–2915	14.40	
	D. 51/54	34.46	12 34	86.2	4.25	88.54	D. 51/54	14.05	
	D. 49/54	36.30	11.58	83 7	4.20	87 50	D. 49/54	13.45	
	H. 38–2915	31.10	13.42	89.8	4.17	86.87	D. 246/55	12.39	
	D. 246/55	38.49	10.43	82.0	4.01	83.54	Q. 56	12.14	
	Mean:				4.80	100.00			
	Significant Difference, 20: 1:				.62	12.92			

* **Standard Cane.**

TABLE V. (a) (Contd)—**Results of Second Ratoon Variety Trials on Demerara Frontland Clay.**

	Variety.	Cane per acre, Tons.	Pol. % Cane	Purity.	Sucrose in Cane per Acre. Tons.	Sucrose in Cane per Acre. % Mean.	Combined results for 3 Crops, Plants, 1st and 2nd Ratoons. Variety.	Combined results for 3 Crops, Plants, 1st and 2nd Ratoons. Sucrose in Cane per acre, Tons.	Trial No.
Sophia, Field 16 West "B". Reaped 28.3.61 at 12.00 months. Rainfall:—96.89 inches.									
MEANS OF 5 PLOTS.	H. 39–5803	35.67	16.22	89.0	5.78	130.77	***B. 41227**	**17.69**	219
	B. 5277	32.04	16.80	88.4	5.38	121.72	B. 5277	16.34	
	D. 44/52	32.84	16.29	84.8	5.35	121.04	D. 44/52	15.73	
	***B. 41227**	**32.36**	**15.89**	**89.8**	**5.14**	**116.29**	H. 39–5803	14.66	
	D. 55/52	27.01	16.25	86.4	4.39	99.32	B. 52222	14.47	
	B. 52222	28 21	14.60	87.4	4.12	93.21	D.B. 169/53	14.44	
	D. 45/52	25.50	16 07	87.1	4.10	92.76	D. 45/52	13.85	
	D.B. 169/53	25.00	16.34	89.4	4.08	92.31	C.P. 44–101	12.72	
	Q. 57	25.76	15.16	86.1	3.90	88.24	H. 39–3633	12.42	
	C.P. 44–101	31.47	11.05	79.2	3.48	78.73	D. 55/52	11.86	
	H. 39–3633	24.65	11.62	80.9	2.86	64.71	Q. 57	10.77	
	Mean:				4.42	100.00			
	Significant Difference, 20: 1:				1.49	33.71			
Pln. Sophia, Field 16 East "A".' Reaped 12.4.61 at 12.00 months. Rainfall :—88.89 inches.									
MEANS OF 5 PLOTS:	***B. 41227**	**35.58**	**17.25**	**90.9**	**6.14**	**155.84**	***B. 41227**	**16.29**	221
	B. 46364	31.19	14.56	88.1	4.54	115.23	B. 50135	15.35	
	B. 50135	25.96	16.68	90.4	4.33	109.90	B. 46364	13.73	
	H. 39-7028	29.77	14.42	87.5	4.29	108.88	H. 39-7028	13.10	
	H. 44-3098	37.62	14.65	87.4	4.05	102.79	H. 44-3098	12.55	
	B. 42231	21.58	16.62	89.8	3.59	91.12	B. 42231	12.50	
	Q. 50	21.01	16.17	89.4	3.40	86.29	B. 5037	9.87	
	B. 5037	28.97	17.22	90.7	3.27	82.99			
	F. 36-819	17.69	16.58	90.3	2.93	74.37			
	C.P. 34-79	18.75	15.27	83.7	2.86	72.59			
	Mean :				3.94	100.00			
	Significant Difference, 20 : 1 :				1.06	26.90			
Pln. Sophia, Field 13 East "B".' Reaped 17,8,61 at 11.75 months. Rainfall :—75.63 inches.									
MEANS OF 5 PLOTS:	D.B. 125/54	42.08	14.02	89.5	5.90	113.24	D.B. 9/54	19.33	224
	D.B. 68/54	39.51	14.62	90.7	5.78	110.94	D.B. 125/54	19.18	
	D.B. 81/54	41.81	13.46	88.3	5.63	108.06	D.B. 68/54	18.83	
	D.B. 80/54	40.33	13.78	89.0	5.56	106.72	***B. 41227**	**18.75**	
	D. 47/54	38.53	13.73	89.6	5.29	101.54	D.B. 81/54	18.14	
	D. 50/54	41.83	12.59	86.9	5.27	101.15	D.B. 13/54	17.84	
	D.B. 131/54	41.35	12.67	88.3	5.24	100.58	D. 50/54	17.55	
	D.B. 7/54	38.15	13.70	88.7	5.22	100.19	D.B. 131/54	17.51	
	D.B. 9/54	38.37	13.48	90.6	5.17	99.23	D.B. 80/54	16.93	
	***B. 41227**	**39.06**	**13.16**	**85.9**	**5.14**	**98.66**	D.B. 7/54	16.90	
	D.B. 77/54	36.68	13.68	87.6	5.02	96.35	D.B. 77/54	16.54	
	D.B. 13/54	37.64	13.13	88.5	4.94	94.82	D. 47/54	16.51	
	D.B. 197/54	35.00	12.70	87.5	4.45	85.41	D.B. 197/54	16.51	
	D.B. 6/54	36.69	11.87	83.6	4.36	83.69	D.B. 6/54	14.71	
	Mean :				5.21	100.00			
	Significant Difference, 20 : 1 :				.62	11.90			

***Standard Cane.**

TABLE V. (a) (Cont'd.) —**Results of Second Ratoon Variety Trials on Demerara Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre. Tons.	Sucrose in Cane per Acre. % Mean.	Combined results for 3 Crops, Plants, 1st and 2nd Ratoons. Variety.	Combined results for 3 Crops, Plants, 1st and 2nd Ratoons. Sucrose in Cane per Acre. Tons.	Trial No.
	Pln. Farm, Field No. 30. Reaped 8.3.61 at 12.50 months. Rainfall:—71.08 inches.								
MEANS OF 5 PLOTS:	D. 133/46	60.26	16.02	91.8	9.65	120.78	D. 133/46	28.85	227
	B. 52107	64.89	14.40	89.2	9.35	117.02	*B. 41227	28.09	
	B. 5277	56.30	15.56	88.8	8.76	109.64	B. 52107	27.90	
	*B. 41227	57.12	14.93	87.9	8.53	106.76	B. 5277	27.06	
	B 52158	50.07	14.46	88.2	7.24	90.61	B. 52158	24.18	
	H. 44–3098	49.90	14.16	89.3	7.07	88.49	H. 44–3098	23.15	
	B. 52144	48.83	14.41	88.5	7.04	88.11	B. 52144	22.34	
	H. 39–5803	42.94	15.41	91.1	6.31	78.97	H. 39–5803	19.46	
	Mean:				7.99	100.00			
	Significant Difference, 20: 1:				1.16	14.52			
	Pln. L.B.I., Field C.M. 34. Reaped 3.10.61 at 12.25 months. Rainfall :—52.69 inches.								
MEANS OF 5 PLOTS:	D. 141/46	41.77	15.56	88.2	6.50	139.19	D. 141/46	17.81	228
	D. 49/46	36.36	15.03	88.1	5.46	116.92	D. 49/46	17.26	
	*B. 41227	36.27	13.75	86.1	4.99	106.85	*B. 41227	15.43	
	B. 53200	35.29	13.16	86.0	4.64	99.36	B. 50347	15.36	
	B. 50347	36.58	12.38	84.0	4.53	97.00	B. 53200	14.74	
	H. 38–2915	31.99	12.22	85.6	3.91	83.73	H. 38–2915	12.75	
	C.P. 44–101	35.38	10.72	82.0	3.79	81.16	C.P. 44–101	13.37	
	D. 50/54	28.51	12.42	84.3	3.54	75.80	D. 50/54	13.23	
	Mean :				4.67	100.00			
	Significant Difference, 20 : 1 :				.75	16.06			
	Pln. Versailles, Field M.Z. 20 W.S. Reaped 23.2.61 at 12.25 months. Rainfall:—94.55 inches.								
MEANS OF 5 PLOTS:	B. 50347	35.01	14.79	90.3	5.18	116.67	*B. 41227	17.89	229
	B. 50135	31.06	15.88	91.2	4.93	111.04	B. 50135	16.69	
	B. 51131	30.56	16 11	90.3	4.92	110.81	B. 51131	16.54	
	B. 51211	29.88	15.03	91.3	4.49	101.13	B. 50347	15.91	
	*B. 41227	31.92	13.80	85.4	4.40	99.10	B. 51134	14.18	
	B. 51134	30.38	13.54	85.5	4.11	92.57	B. 51211	14.10	
	Q. 47	27.15	13.93	87.4	3.78	85.14	P.R. 1000	12.21	
	P.R. 1000	28.17	13.28	84.4	3.74	84.23	Q. 47	11.69	
	Mean:				4.44	100.00			
	Significant Difference, 20: 1:				.46	10.36			

* **Standard Cane.**

TABLE V. (b).—**Results of Second Ratoon Variety Trials on Berbice Frontland Clay.**

	Variety.	Cane per Acre, Tons.	Pol. % Cane.	Purity.	Sucrose in Cane per Acre. Tons.	Sucrose in Cane per Acre. % Mean.	Combined results for 3 Crops, Plants 1st and 2nd Ratoons. Variety.	Combined results for 3 Crops, Plants 1st and 2nd Ratoons. Sucrose in Cane per Acre, Tons.	Trial No.
	† *Pln. Albion, Field R.H. 2. Reaped 5.9.61 at 11.50 months. Rainfall:—61.54 inches.*								
	D. 49/46	36.99	13.46	81.9	4.98	137.19	D. 49/46	12.27	
	B. 53227	32.48	12.74	81.5	4.14	114.05	B. 53227	11.32	
	B. 51116	29 52	13.81	84.5	4.08	112.40	B. 51116	11.05	
	***B. 41227**	**28.26**	**12.85**	**81.0**	**3.63**	**100.00**	B. 5213	9.91	
	B. 5213	30.21	11.18	78.7	3.38	93.11	***B. 41227**	**9.82**	
MEANS OF 5 PLOTS:	B. 52158	27.41	11.49	76.1	3.15	86.78	B. 52158	8.74	230
	B. 52316	25.78	11.95	80.6	3.08	84.85	B. 52316	8.56	
	H. 38–4443	21.30	12.07	78.2	2.57	70.80	H. 38–4443	6.68	
	Mean :				3.63	100.00			
	Significant Difference, 20 : 1 :				.72	19.83			

† **Combined results for Plants and 2nd Ratoons only.**

TABLE V. (c).—**Results of Second Ratoon Variety Trials on Pegassy Clay.**

Pln. Diamond, Field G.G. 15 L.S. Reaped 13.10.61 at 12.00 months. Rainfall:—73.42 inches.

	D. 141/46	43.58	14.19	87.8	6.18	138.56	D. 141/46	21.96	
	***B. 41227**	**34.86**	**13.76**	**88.7**	**4.80**	**107.62**	B. 46364	17.03	
	B. 5277	28.79	15.10	90.2	4.35	97.53	B. 5277	16.69	
	B. 5213	35.75	12.05	84.5	4.31	96.64	B. 5213	16.56	
MEANS OF 5 PLOTS:	B. 52158	28.72	14.82	88.1	4.26	95.52	B. 52107	16.23	235
	B. 52107	29.77	13.65	86.2	4.06	91.03	***B. 41227**	**16.22**	
	B. 46364	28.84	13.63	87.7	3.93	88.12	B. 52158	15.85	
	B. 52144	28.99	13.15	84.5	3.81	85.43	B. 52144	13.30	
	Mean :				4.46	100.00			
	Significant Difference, 20:1.				.70	15.69			

Pln. Enmore, Field B.A. 26. Reaped 24.11.61 at 9.25 months. Rainfall :—40.44 inches.

	B. 5277	28.89	14.96	88.3	4.47	122.47	B. 5277	15.39	
	***B. 41227**	**28.81**	**15.10**	**87.7**	**4.35**	**119.18**	***B. 41227**	**14.73**	
	D. 49/46	29.50	14.23	84.4	4.20	115.07	D. 49/46	14.38	
	B. 5452	23.17	15 23	90.1	3.53	96.71	B. 5212	13.57	
MEANS OF 5 PLOTS:	B. 52158	24.61	13.82	85.8	3.40	93.15	B. 52158	13.08	
	B. 5212	21.54	14.66	87.3	3.16	86.58	B. 5452	12.86	266
	N.Co. 300	19.99	15.50	87.2	3.10	84.93	P.R. 1000	10.18	
	P.R. 1000	20.78	14.23	86.8	2.96	81.10	N.Co. 300	9.86	
	Mean :				3.65	100.00			
	Significant Difference, 20:1:				.64	17.53			

*Standard Cane.

TABLE V (c) (Cont'd) —**Results of Second Ratoon Variety Trials on Pegassy Clay.**

	Variety.	Cane per Acre Tons.	Pol. % Cane.	Purity.	Sucrose in Cane Per Acre		Combined results for 3 Crops, Plants, 1st and 2nd Ratoons.		Trial No.
					Tons.	% Mean	Variety.	Sucrose in Cane per Acre, Tons.	
	Pln. Leonora, Field P.L. 53. Reaped 10.2.61 at 11.75 months. Rainfall:—77.88 inches.								
MEANS OF 5 PLOTS:	H. 38-2915	63.72	13.46	87.9	8.58	135.33	H. 38-2915	27.77	236
	***B. 41227**	**52.98**	**14.96**	**90.0**	**7.93**	**125.08**	***B. 41227**	**24.20**	
	H. 39-3633	53.62	13.15	89.1	7.05	111.20	H. 39-3633	21.15	
	H. 39-5803	47.42	14.77	90.6	7.01	110.57	H. 44-3098	19.70	
	H. 44-3098	49.24	13.88	89.7	6.83	107.73	H. 39-5803	19.27	
	Q. 50	35.99	12.87	85.3	4.63	73.03	Q. 57	13.85	
	H. 38-4443	43.66	9.99	76.0	4.36	68.77	Q. 50	12.44	
	Q. 57	30.58	14.12	89.7	4.32	68.14	H. 38-4443	11.57	
	Mean :				6.34	100.00			
	Significant Difference, 20:1 :				.93	14.67			
	Pln. Leonora, Field C.I. N.E. 6 Reaped 13.9.61 at 11.25 months. Rainfall:—77.76 inches.								
MEANS OF 5 PLOTS :	***B. 41227**	**42.31**	**14.22**	**89.6**	**6.02**	**108.27**	***B. 41227**	**20.75**	237
	B. 50135	44.81	13.41	84.8	6.01	108.09	B. 50275	19.68	
	B. 50275	41.71	14.02	88.5	5.85	105.22	B. 51116	19.42	
	B. 51116	39.75	14.16	88.7	5.63	101.26	B. 50135	19.31	
	B. 5277	39.88	13.89	88.1	5.54	99.64	B. 5277	18.66	
	B. 50347	42.57	12.61	86.3	5.37	96.58	B. 50347	17.29	
	B. 53218	38.60	13.47	84.8	5.20	93.53	B. 53200	17.27	
	B. 53200	37.99	12.76	84.2	4.85	87.23	B. 53218	15.79	
	Mean :				5.56	100.00			
	Significant Difference, 20:1 :				—	—			

***Standard Cane.**

TABLE V. (d). —**Results of Second Ratoon Variety Trials on Riverside Clay.**

	Variety.	Cane per Acre Tons.	Pol. % Cane.	Purity.	Sucrose in Cane Per Acre		Combined results for 3 Crops, Plants, 1st and 2nd Ratoons.		Trial No.
					Tons.	% Mean.	Variety.	Sucrose in Cane per Acre, Tons.	
Pln. Ruimveldt, Field 48 South. Reaped 8.8.61 at 12.00 months. Rainfall :— 67.36 inches.									
MEANS OF 5 PLOTS :	D.B. 154/55	28.24	13.60	87.8	3.86	116.97	D.B. 154/55	11.86	233
	D.B. 5/55	29.10	13.05	87.7	3.80	115.15	D.B. 5/55	11.48	
	***B. 41227**	**26.26**	**13.95**	**87.3**	**3.67**	**111.21**	***B. 41227**	**10.72**	
	D.B. 49/55	23.20	14.35	87.7	3.33	100.91	D.B. 49/55	10.72	
	D.B. 13/55	27.47	11.99	85.0	3.29	99.70	D.B. 13/55	9.30	
	D.B. 7/55	24.17	12.77	87.2	3.09	93.64	D.B. 7/55	8.81	
	D.B. 101/55	22.40	13.74	86.9	3.08	93.33	D.B. 101/55	8.38	
	D.B. 1/55	19.15	11.72	84.1	2.25	68.18	D.B. 1/55	7.17	
	Mean :				3.30	100.00			
	Significant Difference, 20:1 :				.61	18.48			
Pln. Diamond, Field G.D. 17. Reaped 7.12.61 at 8.75 months. Rainfall:—57.62 inches.									
MEANS OF 5 PLOTS :	B. 53218	40.41	12.61	85.4	5.10	136.00	B. 50135	17.91	261
	B. 50135	35.73	12.10	80.9	4.33	115.47	B. 53218	17.29	
	***B. 41227**	**34.40**	**12.39**	**83.5**	**4.26**	**113.60**	***B. 41227**	**15.57**	
	B. 53227	30.61	11.84	83.8	3.62	96.53	B. 53227	14.20	
	D. 238/55	34.54	10.46	77.9	3.61	96.27	D. 238/55	14.17	
	B. 53200	31.10	11.49	80.6	3.57	95.20	B. 53200	13.67	
	B. 5352	28.89	11.98	82.7	3.46	92.27	B. 5352	13.20	
	B. 5398	27.40	11.54	81.9	3.16	84.27	D.B. 169/53	12.24	
	D.B. 169/53	19.45	13.69	89.0	2.66	70.93	B. 5398	12.00	
	Mean :				3.75	100.00			
	Significant Difference, 20:1 :				.46	12.27			

*Standard Cane.

Index of the Trial Numbers of the 1961 Reapings of the more Promising Varieties.

VARIETY	TRIAL NUMBER Plants	1st Ratoon	2nd Ratoon
B.5490	296	253, 249, 268	213, 214, 222
B.54142	287	253	213, 214, 222
B.54262		253, 265	213, 214, 222
B.54277		253, 249, 256, 268	213, 214, 222
D.B.9/54	281, 296, 290	249	224
D.B.125/54	280, 290	249	224
D.B.5/55	277, 287	245, 257	215, 233
D.B.6/55	287	245, 257	215
D.B.9/55		245,257	215
D.249/55	277, 291	291, 268	218, 222

DISCUSSION OF PROGRESS IN VARIETY EVALUATION.

PROMISING VARIETIES.

Table I below gives a summary of the performance of the most promising varieties under trial up to, and including, the B. 1954, D.B. 1955 and D.1955 Series. However, since they are still in a relatively early stage of testing, the results are few. It is therefore impossible to forecast their performance on any particular soil type and the average figures quoted are only a very rough indication of the value of the variety. An index of the trial numbers of the 1961 Reapings of these varieties is also given above.

A number of foreign varieties are included in formal Variety Trials but none have, as yet, shown any promise.

TABLE I.—**Summary of Variety Trial Preformances of Promising Varieties in an Early Stage of Testing.**

The Available Pol/Acre and Available Pol. % Cane Indices are Expressed on the Basis of B. 41227 = 100. (Number of Trials in Parenthesis).

VARIETIES.	PARENTAGE.	LEAF SCALD RATING.	PLANTS.					1st & 2nd RATOONS.					AVERAGE AVAILABLE POL. % CANE INDEX.	
			*	†	‡	§	Average Available Pol/Acre Index.	*	†	‡	§	Average Available Pol/Acre Index.	Plants.	1st & 2nd Ratoons.
B. 5490	B. 37172 x B. 46397	R	1	3	2	1	106 (8)	3	5	0	1	112 (9)	109 (8)	108 (9)
B. 54142	B. 44182 x B. 45151	S	2	1	1	1	118 (5)	4	1	1	1	111 (7)	106 (5)	108 (7)
B. 54262	B. 4362 x B. 4098	R	1	1	1	2	94 (5)	3	1	1	3	99 (8)	91 (5)	103 (8)
B. 54277	B. 44341 x B. 3337	R	2	3	2	0	180 (7)	4	2	3	1	110 (10)	106 (7)	104 (10)
D.B. 9/54	B. 46103 x B. 41227	Unrated	1	2	1	2	97 (6)	0	3	1	1	100 (5)	96 (6)	94 (5)
D.B. 125/54	P.R. 1000 x B. 41227	„	0	3	0	2	100 (5)	2	1	2	0	107 (5)	99 (5)	104 (5)
D.B. 5/55	B. 39254 x B. 49119	„	0	2	3	1	97 (6)	1	3	1	1	105 (6)	105 (6)	104 (6)
D.B. 6/55	B. 39254 x B. 49119	„	0	0	4	0	96 (4)	1	1	2	0	107 (4)	106 (4)	110 (4)
D.B. 9/55	B. 39254 x B. 49119	„	0	1	2	0	92 (3)	1	1	1	1	100 (4)	103 (3)	109 (4)
D. 249/55	D. 62/43 x B. 47162	„	1	1	2	1	102 (5)	2	1	1	2	98 (6)	106 (5)	98 (6)

LEGEND.

* Exceeded Standard Cane (B. 41227) in Yield Pol/Acre Significantly.
† Exceeded Standard.
‡ Beaten by Standard.
§ Beaten by Standard Significantly.

LEAF SCALD RATINGS.

R Resistant.
S Susceptible.

POSITION OF OTHER SERIES.

Barbados Series.

B. '55. Five of the eighteen members of this series have been rejected on the basis of their susceptibility to leaf scald. The remaining thirteen varieties do not appear promising and were not included in trial plantings during 1961.

B. '56. None of the four remaining members of this series appears to be of any value on the basis of their plant cane reapings and no further trials will be made with them until ratoon results are available.

B. '57. The testing of this series is well in hand with all thirteen varieties in one or more formal trials.

B. '58. Plant cane Sorting Trial Results for this series are not impressive. Each of the sixty varieties will be planted in a further Sorting Trial.

B. '59. Of the one hundred and eighty-four varieties in the propagation plots forty-seven were selected and placed in Sorting Trials during 1961.

B. '60. Some ninety-eight members of the B. 60 series were extended into propagation plots during 1961 and selections from these plots will enter the Sorting Trial stage in early 1962.

B. '61. Three hundred and thirty-five varieties were received from Barbados, each as a single three eye cutting, and planted as single stools at the Station.

Demerara-Barbados Series.

D.B. '56. Of the fifty-five varieties in Sorting Trials only eleven can be definitely rejected at this stage in the programme. However, judging by the plant cane results, the performance of the series as a whole is poor.

D.B. '57. Most of these varieties have each been included in two Sorting Trials.

D.B. '58. During 1961 the propagation plots were inspected and some forty-eight varieties placed in Sorting Trials.

D.B. '59. During the first selection of this series in early 1961, some one thousand two hundred and seventy-nine (1,279) field selections were made. Of this number only three hundred and twenty-eight (328) were finally selected on the results of juice analyses. During the First Ratoon selection in late 1961 three hundred and thirty-six varieties were selected for propagation plots but it will be noted that this selection contained relatively few of the varieties selected as Plants. See Appendix III.

D.B. '60. Over forty-three thousand seedlings constituting this series were planted out in the early part of 1961. See Appendix II.

D.B. '61. Shipments of Fuzz, from crosses made in Barbados, began arriving towards the end of November, 1961 and continued into 1962. The seed was sown into the Nursery flats on arrival but germination does not appear to have been as good as usual.

Demerara Series.

D. '56. All five members of this series are in the formal trial stage but do not appear to be of any value. Results of the present trials will be awaited before considering any variety for further trials.

D. '57. The Sorting Trial containing the fourteen varieties was reaped as plants in 1961.

D. '58. The nineteen varieties constituting this series were placed in a Sorting Trial.

D. '59. This series was due for its first single stool stage selection in late 1961 as First Ratoons. The selection however had to be postponed until January, 1962. The final selection will be made as Second Ratoons in late 1962.

D. '60. The Nursery fields of this series were reaped as plants, without selection, during 1961.

D. '61. During late 1961 ninety-four crosses were attempted as follows:—

H.32-1063	x D.37/45; x D.B.125/54; x D.B.169/53.
H.37-1933	x D.37/45; x D.B.125/54.
H.38-2915	x D.B.125/54; x D.37/45; x D.B.169/53; x B.5779.
C.P.44-101	x *D.37/45;* x D.B.125/54.
M.112/34	x D.B.125/54; x D.37/45; x D.B.169/53; x B.5779; x Eros.
Co.421	x *D.37/45;* x *B.41227* x D.B.125/54; x B.42231.
Eros	x D.B.125/54; x B.5736; x D.37/45; x D.B.169/53; x B.5779.
Ragnar	x *D.37/45;* x D.B.125/54; x D.B.169/53; x B.5779; x B.5736.
Trojan	x D.B.169/53; x D.37/45; x D.B.125/54; x B.5736.
P.O.J. 2878	x D.B.125/54; x D.37/45.
D.14/34	x B.5779; x D.B.169/53; x B.5736; x D.B. 125/54; x Eros.
D.166/34	x Diamond 10.
D.158/41	x D.B.125/54; x B.41227; x B.5779; x M.134/32; x D.B.169/53; x Eros; x B.5736.
D.62/43	x D.B.125/54; x D.37/45; x *B.41227;* x M.134/32; x Eros; x *D.B.169/53;* x *B.5779;* x Vesta; x *B.5736.*
D.49/46	x D.B.125/54; x B.41227; x B.5779; x D.B.169/53; x B.5736.
D.141/46	x B.41227; x B.5785; x H.32-8560; x D.B.125/54; x *B.5779;* x M.134/32; x Vesta; x *D.B.169/53;* x *B.5736;* x Eros.
D.26/52	x D.B.169/53; x *D.37/45;* x B.5779; x H.32-8560; x D.B.125/54; x B.41227; x B.5736.
D.B.85/53	x D.37/45; x D.B.125/54; x B.41227; x B.5779, x D.B.169/53; x Eros.
B.37161	x D.37/45; x D.B.125/54; x D.B.169/53; Eros.
B.5780	x D.37/45; x D.B. 169/53.
B.57174	x D.37/45; x D.B. 125/54.

Of the crosses listed above, twelve with the male parent in italics, were made in a lantern battery. All but two, D.26/52 x D.37/45 and Co.421 x B.41227, being duplicated in the field. The object being to compare the efficiency of the two methods which are fully described in Bulletin No. 29 of 1960.

The sowing of fuzz from these crosses began in November, 1961 and continued into 1962.

Foreign Varieties.

The following varieties were received during 1961 from the Plant Quarantine Station, Trinidad.

H.50–7209	C.676–47
P.R.980	C.693–47
P.R.1013	C.529–50
C.B.40–69	C.236–51
C.B.41/76	C.278 Q
Co.453	

These varieties will be extended for possible inclusion in Variety Trials.

RECOMMENDATIONS

In previous Bulletins the performances of varieties under trial have been considered on the basis of their overall performance on all soil types and in both Spring and Autumn reapings.

Most varieties show yield differences in relation to the Standard cane (B.41227) on different soil types. Some varieties and this is particularly true of the 'D. Series' show marked differences between Spring and Autumn reapings.

This "average performance" is weighted in favour of the performance on Demerara Frontland Clay since most of our trials are planted on this soil type, and therefore gives no reliable indication of the yield on any particular soil type except perhaps on Demerara Frontland Clay.

For these reasons a re-examination of results has been made and recommendation given on the basis of the three soil types for which sufficient results are available. Where no mention is made to Spring and Autumn reaping it may be assumed that there is no obvious yield difference between the two reapings.

TABLE II. — A Comparison of Promising Cane Varieties with Varieties in Estate Cultivation on Demerara Frontland Clay on the basis of their Variety Trial Performances.

	Leaf Scald Rating.	Available Pol/Acre Indices (B. 41227 = 100).		
		Plants.	1st Ratoons.	2nd Ratoons.
D. 141/46 (Autumn Crop Only)	S/T	110 (11)	117 (10)	118 (10)
B. 49119	S	110 (5)	120 (5)	105 (5)
D. 37/45 (Autumn Crop Only)	S	106 (8)	113 (8)	121 (8)
D. 49/46 (Autumn Crop Only)	R	97 (12)	113 (12)	110 (12)
B. 47258	T	103 (7)	108 (7)	102 (7)
D. 158/41 (Autumn Crop Only)	T	108 (7)	102 (7)	102 (7)
D. 26/52	Unrated	107 (8)	102 (8)	101 (4)
B. 50135	R	100 (8)	105 (8)	97 (8)
B. 53227	R	99 (6)	100 (6)	102 (4)
B. 41227	S/T	100	100	100
B. 51131	R	102 (8)	98 (8)	99 (8)
B. 51116	S/T	99 (4)	100 (4)	98 (4)
B. 52107	R	90 (4)	96 (4)	108 (4)
B. 45137	T	94 (7)	102 (7)	94 (7)
B. 37161	S/T	86 (19)	99 (20)	96 (18)
Pindar	S/T	87 (7)	87 (7)	90 (7)
B. 47225	R	88 (6)	93 (6)	82 (6)

Few results are available for Spring reapings of members of the 'D. Series' but these indicate that the Spring crop yields of D.141/46 and D.26/52 are equal to that of B.41227. The varieties D.49/46 and D. 37/45 are almost certainly inferior to B.41227 in their Spring reapings.

Even in the present difficult period through which the Sugar Industry is passing each Estate must surely have a proportion of its acreage which it can guarantee for Autumn reaping. This being so the varieties D.141/46, D.37/45 and D.49/46 offer incomparable increases in yield at the expense of perhaps some flexibility in the reaping programme.

TABLE III. — A Comparison of Promising Cane Varieties with Varieties in Estate Cultivation on Berbice Frontland Clay on the basis of their Variety Trial Performances.

	Leaf Scald Rating.	Available Pol/Acre Indices (B. 41227 = 100).		
		Plants.	1st Ratoons.	2nd Ratoons.
B. 51116	S/T	110 (4)	112 (3)	119 (2)
D. 141/46	S/T	111 (3)	117 (3)	103 (1)
B. 49119	S	108 (5)	107 (5)	102 (5)
D. 49/46	R	101 (3)	101 (2)	113 (3)
B. 47258	T	103 (10)	111 (9)	99 (8)
B. 45137	T	89 (4)	109 (4)	107 (4)
B. 50135	R	104 (2)	99 (3)	102 (1)
B. 41227	S/T	100	100	100
B. 37161	S/T	95 (13)	98 (12)	89 (11)
B 47225	R	93 (6)	92 (6)	90 (6)
Pindar	S/T	88 (9)	92 (9)	93 (9)

It will be noted that in the case of many varieties only a few trial results are available. Since varietal performance is somewhat similar on the Berbice and Demerara Frontland Clays, a glance at the trial results on Demerara Frontland Clay Table II might be used to reinforce the few Berbice results.

TABLE IV. — A Comparison of Promising Cane Varieties with Varieties in Estate Cultivation on Pegassy Clay soils on the basis of their Variety Trial Performances.

	Leaf Scald Rating.	Available Pol/Acre Indices (B. 41227 = 100).		
		Plants.	1st Ratoons.	2nd Ratoons.
D. 141/46	S/T	106 (4)	113 (4)	112 (4)
D. 26/52	Unrated	113 (4)	115 (3)	—
B. 47258	T	95 (4)	103 (4)	108 (4)
B. 49119	S	84 (4)	102 (4)	110 (4)
B. 41227	S/T	100	100	100
Pindar	S/T	100 (5)	87 (5)	96 (5)
B. 45137	T	92 (6)	95 (6)	92 (5)
B. 47225	R	111 (5)	88 (5)	85 (4)
B. 37161	S/T	94 (9)	89 (8)	85 (8)

It will be realized that Pegassy Clay soils are variable in composition dependent upon the depth of the original pegasse, and the manurial and cultural treatments. The results in Table IV above were obtained from trials on a variety of 'Pegasse type' soils ranging from Backlands recently brought under cultivation to soils in which the original thin layer of pegasse had almost disappeared due to admixture of the clay subsoil over a number of crop cycles.

It has now been found that the unfavourable growing conditions often associated with Pegasse-type soils are frequently due to acid-sulphate toxicity. These toxic conditions are not necessarily always associated with Pegasse soils and it is rather a test of variety resistance to acid-sulphate conditions that is required.

THE VARIETY AND FERTILIZER POSITION OF THE SUGAR INDUSTRY, XXVII.

BY

C. D. WATKINS, Sugar Agronomist.

1. Commercial Yields, 1961.

The average yield per acre of commercial sugar for 1961 was 3.18 tons compared with 3.37 and 3.59 tons per acre for 1959 and 1960 respectively.

As a result of the relatively dry conditions during the first part of the year the Spring crop cane yields were low but the quality comparatively good.

The reaping of the Spring crop was completed ahead of schedule and since some of the Autumn crop had reached a fair state of ripeness a certain acreage was brought forward into the Spring crop. The intention being that the start on the Autumn crop should then be delayed. However, this delay was not possible since sugar for the 'windfall' American quota had to be made with the result that the Autumn reaping started on relatively young cane with a low sucrose content. In addition the rainfall during the period June to September was sufficient to reverse the condition of ripeness induced by the drought and to encourage vigorous growth of the cane.

In order to make the required quantity of sugar some cane was brought forward from the Spring crop of 1962 into the Autumn crop of 1961.

The drought during the early part of the year undoubtedly had some effect on the amount of sugar produced during that period. However, the greater part of the apparent fall in yield was due to the fact that much of the cane, particularly during the Autumn crop, was reaped at an early age.

TABLE V.—Weighted Average Yields for Major Cane Varieties, 1961.

Variety.	Average Yield 1961. (Tons Sugar Per Acre).						Average Tons Cane per ton Sugar.
	Plants.	1 R.	2 R.	3 R.	4 R.	Old R.	
B. 4362	*4.41	*3.66	3.61	*3.86	3.52	3.24	10.22
B. 4098	*4.28	3.35	*3.45	2.93	—	2.99	11.15
B. 47258	4.15	3 42	3.31	3.08	2.64	2.75	10.84
B. 41227	3 74	3.40	3 23	3.16	3.18	3.06	11.03
B. 37161	3.64	3.24	3.30	3.17	2.83	2.94	11.01
Pindar	*3.63	*4.49	*3.41	2.77	2.93	2.86	10.82
B. 47225	3.40	2.97	*3.79	3.00	3.18	2.93	11.09
Colony Average. (All varieties).	3.69	3.38	3.25	3.13	2.98	2.99	11.01

* **The Acreages reaped in 1961 in these crop cycles are between 25 and 100 acres and are therefore probably not entirely reliable.**

Table V shows the average yield in tons sugar per acre for the major cane varieties. A major cane variety is here defined as one having a total acreage, of all crop cycles, in excess of 1,000 acres. A glance at Table VI however, shows that only B.41227 and B.37161 could be regarded as major cane varieties in the generally accepted sense. For varieties other than B.41227 and B.37161 the proportional distribution over the various soil types is likely to differ and the figures quoted in Table V are not strictly varietally comparable.

2. Varietal Composition of the 1961 Harvest.

The acreage and the regional distribution of the varieties reaped during 1961 are shown in Table VI. The acreages of the various varieties which constitute the 'Other Canes' category is given in Table VII.

TABLE VI.—**Acreage and Percentage Distribution of the Varieties Reaped in 1961.**

Variety.	English Acres.	Percentage Distribution.				
		In West Demerara.	Along Demerara River Banks.	In East Demerara.	In Berbice.	In Colony.
B. 41227	49,171.1	14.8	21.1	26.0	38.1	45.9
B. 37161	37,782.2	12.6	23.4	9.7	54.3	35.3
B. 47258	7,114.3	19.3	41.4	18.5	20.8	6.6
B. 47225	3,980.5	27.2	19.3	31.6	21.9	3.7
Pindar	1,595.5	12.0	43.8	17.1	27.1	1.5
B. 4362	1,410.6	77.5	8.7	11.3	2.5	1.3
B. 4098	1,003.5	7.2	16.4	8.4	68.0	.9
B. 45137	779.4	9.7	3.7	41.9	44.7	.7
D. 141/46	525.7	51.2	22.7	10.2	15.9	.5
Co.419	473.3	2.3	77.0	12.3	8.4	.4
D. 37/45	462.2	1.6	8.4	84.0	6.0	.4
B. 49119	274.6	27.4	64.3	.8	7.5	.3
B. 47379	272.7	27.4	22.2	27.2	23.2	.3
B. 47419	210.1	—	100.0	—	—	.2
B. 4942	179.8	3.8	96.2	—	—	.2
B. 46378	175.2	8.5	62.9	7.5	21.1	.2
D. 158/41	164.9	—	1.7	—	98.3	.2
Other Canes	1,541.4	19.6	12.0	25.4	43.0	1.4
Totals ..	107,117.1	15.6	23.7	19.5	41.2	100.0

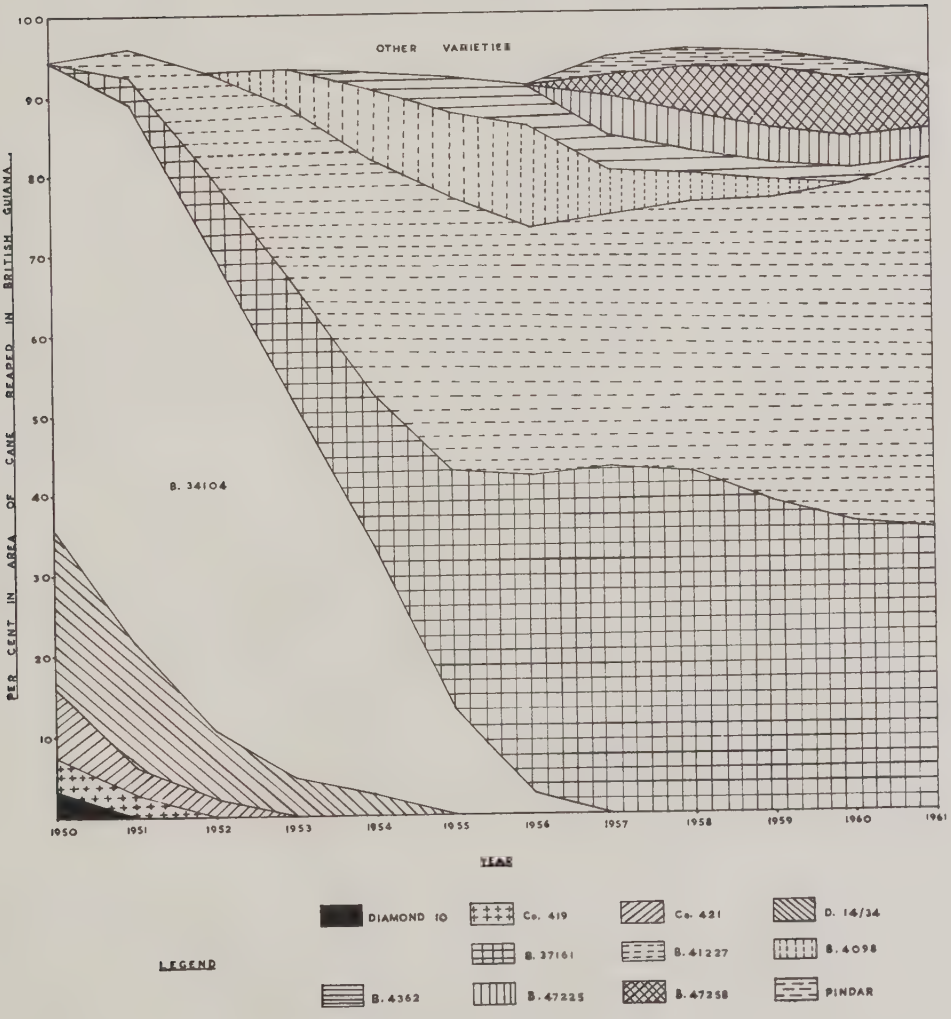
TABLE VII.— **Acreages of the Varieties Constituting the "Other Canes" Category, 1961.**

Variety.	English Acres.	Variety.	English Acres.	Variety.	English Acres.
B. 34104	24	B. 50135	31	M. 134/32	4
B. 40105	20	B. 51116	96	M. 112/34	10
B. 42231	13	B. 51131	2	N.Co. 330	26
B. 4373	152	B. 5277	3	P.O.J. 2967	22
B. 43253	32	Comus	3	P.O.J. 3016	3
B. 43413	2	D. 142/41	10	Q. 28	10
B. 4744	129	D. 62/43	42	Q. 47	15
B. 47262	1	Eros	44	Ragnar	69
B. 48372	60	H. 37–1933	5	Trojan	17
B. 4995	8	H. 38–2915	1	Mixed Varieties	631
B. 49257	3	H. 44–3098	53		

FIGURE I.

CHANGES IN THE MAJOR CANE VARIETIES

GROWN IN BRITISH GUIANA, 1950 - 1961.



3. Acreages under the Various Varieties Scheduled for Reaping in 1962.

Table VIII. shows the acreage under the various varieties which are scheduled for reaping in 1962.

TABLE VIII—Percentage Distribution of the Varieties to be Reaped in 1962.

Variety.	Total English Acres.	In West Demerara.	Along Demerara River Banks.	In East Demerara.	In Berbice.	Colony.
B. 41227	47,833.2	15.5	22.4	24.6	37.5	49.9
B. 37161	29,850.6	12.0	24.3	11.2	52.5	31.2
B. 47258	5,310.6	18.6	40.9	22.6	17.9	5.5
B. 47225	3,038.4	26.1	24.3	28.6	20.1	3.2
D. 141/46	1,938.5	37.6	29.3	11.4	21.7	2.0
Pindar	1,324.8	11.3	43.1	20.6	25.0	1.4
B. 4362	1,247.0	76.7	7.3	14.1	1.9	1.3
D. 37/45	725.3	.4	5.4	79.7	14.5	.8
B. 45137	645.0	10.6	2.9	46.7	39.8	.7
B. 4098	555.3	9.3	13.9	15.1	61.7	.6
Co. 419	331.3	4.8	77.6	17.6	—	.3
D. 158/41	302.7	—	1.0	—	99.0	.3
B. 47379	267.1	5.4	22.7	66.7	5.2	.3
B. 47419	231.6	—	100.0	—	—	.2
B. 4744	222.8	100.0	—	—	—	.2
B. 4373	204.9	4.1	1.2	88.6	6.1	.2
B. 51116	189.3	1.6	26.4	4.4	67.6	.2
B. 49119	178.1	23.3	67.3	1.1	8.3	.2
Other Canes	1,372.5	14.8	30.3	16.9	38.0	1.5
Totals ..	95,769.0	15.9	24.4	20.3	39.4	100.0

4. The Changing Variety Pattern.

The changing variety pattern for the major varieties is shown in Figure I. It will be noted that the percentage contribution of B.41227 to the total acreage has increased. This has been accompanied by a decrease in the percentage of the varieties B.4362, B.47225, B.47258 and Pindar all of which appear to be declining in importance. A comparison of Tables VI and VIII shows that these trends continue into the scheduled 1962 harvest. Table VIII also shows that there has been a considerable increase in the acreage of D.141/46 and D.37/45 to be reaped in 1962, this being particularly true of D.141/46.

5. Cycle Age of the Crop.

Table IX shows that there has been a further increase in the proportion of the crop which is older than 4th Ratoon.

TABLE IX. —Cycle Age of the Crops.

Category.	Percentage.									
	1953.	1954.	1955.	1956.	1957.	1958.	1959.	1960.	1961.	1962.
Plants	26.1	25.0	26.1	27.9	25.1	19.7	13.4	11.9	12.9	13.5
1st Ratoons	23.9	25.1	23.9	24.5	24.8	22.5	18.3	13.0	11.0	10.9
2nd Ratoons	22.4	23.0	24.1	23.3	23.7	22.8	21.7	18.0	10.8	11.5
3rd Ratoons	18.2	17.8	18.6	17.1	16.5	19.9	20.7	19.4	17.6	10.8
4th Ratoons	8.5	7.4	5.0	5.1	7.3	9.6	15.6	17.8	15.5	14.7
Old Ratoons	.9	1.7	2.3	2.1	2.6	5.5	10.3	19.9	32.2	38.6
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

6. Fertilizer Useage on Estates.

Table X shows the type, quantity and value of fertilizer applied by Sugar Estates for the years 1959, 1960 and 1961.

The figures for 1961 show that lower quantities of Sulphate of Ammonia and Urea were applied than in 1960. This can be attributed mainly to the very dry conditions prevailing during the first half of the year.

The quantity of Limestone used during 1961 showed an increase over the figure for 1960.

There was a further decline in the application of Di-Ammonium Phosphate; this being due to the relatively high cost of this fertiliser.

Table X.—Values and Quantities of Fertilizers used on Sugar Estates, 1959 — 1961.

	Ammonium Sulphate.			Superphosphate.			Hyperphosphate.			Muriate of Potash.			Limestone.			Urea.			Di-ammonium Phosphate.			Basic Slag.		
	1959.	1960.	1961.	1959.	1960.	1961.	1959.	1960.	1961.	1959.	1960.	1961.	1959.	1960.	1961.	1959.	1960.	1961.	1959.	1960.	1961.	1959.	1960.	1961.
Quantity—Tons ..	19,800	22,561	20,651	1,171	937	1,208	1,538	3,296	3,166	3,541	3,649	3,448	13,085	13,377	15,233	1,022	481	357	737	317	164	—	68	50
Value — $ ..	1,801,103	1,828,214	1,666,983	184,690	128,939	182,008	114,586	208,030	207,759	331,977	325,350	325,117	318,954	320,238	318,239	229,132	89,274	66,259	193,831	77,792	40,246	—	3,702	2,731
Cost per Ton — $	90.96	81.03	80.72	157.72	137.61	150.67	74.50	63.12	65.62	93.75	89.16	94.29	24.38	23.94	20.89	224.20	185.60	185.60	263.00	245.40	245.40	—	54.44	54.62
% of Total Quantity	48.4	50.5	46.6	2.9	2.1	2.7	3.8	7.4	7.1	8.6	8.2	7.8	32.0	29.9	34.4	2.5	1.1	.9	1.8	.7	.4	—	.1	.1
% of Total Value	56.7	61.3	59.3	5.8	4.3	6.5	3.6	7.0	7.4	10.5	10.9	11.6	10.1	10.8	11.3	7.2	3.0	2.4	6.1	2.6	1.4	—	.1	.1

REPORT ON THE SUGAR EXPERIMENT STATIONS FOR THE YEAR 1961.

SUGAR EXPERIMENT STATIONS' COMMITTEE.

The following members formed the British Guiana Sugar Experiment Stations' Committee for the year 1961:—

The Director of Agriculture Mr. G. B. Kennard	*Chairman.*
Mr. R. R. Follett-Smith, C.B.E. ..	*Messrs. Bookers Sugar Estates, Ltd.*
Dr. H. Evans, O.B.E.	*Messrs. Bookers Sugar Estates, Ltd.*
Mr. J. Baxter	*Messrs. Bookers Sugar Estates, Ltd. (to July).*
Mr. R. T. Findlay	*Messrs. Bookers Sugar Estates, Ltd. (from July).*
Mr. A. G. Harley	*Messrs. Demerara Company, Ltd.*
Mr. W. N. L. Davies .. .	*Secretary (to November).*

RESEARCH SUB-COMMITTEE.

The personnel of the British Guiana Sugar Experiment Stations' Research Sub-Committee for 1961 was as follows:—

The Director of Agriculture	*Chairman.*
Dr. H. Evans, O.B.E.	*Messrs. Booker Sugar Estates Ltd*
Mr. A. G. Harley	*Messrs. Demerara Company, Ltd.*
Mr. W. N. L. Davies	*Sugar Agronomist, British Guiana Sugar Producers' Association.*
Dr. H. Paul	*Deputy Director of Agriculture, Department of Agriculture.*
Mr. C. P. Kennard	*Entomologist, Department of Agriculture.*

STAFF OF SUGAR EXPERIMENT STATION.

W. N. L. Davies, B.Sc. (Wales) ..	*Sugar Agronomist.*
C. Cameron	*Field Manager (to August).*
R. B. Mitchell	*Field Manager (from April).*
H. I. Gomes	*Field Assistant.*
R. S. Dookun	*Field Assistant.*
L. A. French	*Field Assistant.*
S. Singh	*Field Assistant.*
K. F. Chung	*Statistical Assistant.*
S. Mangra	*Laboratory Assistant.*
S. Buchanan	*Typist.*

TABLE I.—Statistics of Seedlings, Cane Distribution, Field Experiments, Cane Samples, Cane Sold and Visits Paid to Estates, 1952 – 1961.

Year.	Seedlings Basketed.	Cane Cuttings Distributed.		Field Experiments.		Cane Samples.		Cane Sold to L.B.I. Estate.		No. of Visits to Estates.
		No. of Cuttings.	No. of Bags.	Started.	Harvested.	No. Taken and Analysed.	Cane Crushed (Tons).	Deliveries (Tons).	Net Receipts. $	
1952 ..	58*	174,420	2,907	32	62	1,102	30	2,794.50	22,274.61	80
1953 ..	1,133**	104,640	1,744	27	63	1,015	37	3,345.20	31,255.78	88
1954 ..	8,797‡	132,120	2,202	33	80	1,076	31	3,524.49	28,698.86	82
1955 ..	3,149‡‡	139,200	2,320	29	86	1,680	44	3,488.40	28,561.15	83
1956 ..	4,815‡‡	79,620	1,327	29	91	1,903	48	3,078.50	25,908.13	70
1957 ..	17,060‡‡	106,110	1,768	26	103	2,100	55	2,962.65	28,671.62	78
1958 ..	15,316‡‡	97,320	1,622	24	90	2,013	48	3,689.00	29,383.56	62
1959 ..	27,379‡‡	122,880	2,048	32	81	1,438	43	3,581.46	27,679.57	53
1960 ..	58,102‡‡	159,600	2,660	28	78	1,921	56	3,548.41	31,099.92	61
1961 ..	70,208‡‡	71,040	1,184	15	81	2,352	71	3,929.77	35,055.53	51

1952 *Demerara Crosses.
1953 **Mauritius "Fuzz".
1954 ‡Barbados "Fuzz".
1955 ‡‡Barbados "Fuzz" (2,982) and Demerara Crosses (167).
1956 ‡‡Barbados "Fuzz" (3,928) and Demerara Crosses (887).
1957 ‡‡Barbados "Fuzz" (15,307) and Demerara Crosses (1,753).
1958 ‡‡Barbados "Fuzz" (13,578) and Demerara Crosses (1,736).
1959 ‡‡Barbados "Fuzz" (24,977) and Demerara Crosses (2,402).
1960 ‡‡Barbados "Fuzz" (41,006) and Demerara Crosses (17.096)
1961 ‡‡Barbados "Fuzz" (48,743) and Demerara Crosses (21,465).

PERSONNEL CHANGES, LEAVE, ETC.

Mr. C. D. Watkins, B.Sc. (Wales), D.T.A. was appointed Sugar Agronomist from December 10th, 1961 in succession to Mr. W. N. L. Davies, B.Sc. (Wales).

	Annual Leave	Sick Leave	Vacation Leave
Mr. H. I. Gomes	—	—	1. 5.61—31. 7.61
Mr. R. S. Dookun	18. 9.61— 2.10.61	—	—
Mr. L. A. French	—	—	1. 6.61—31. 8.61
Mr. S. Singh	25. 9.61—10.10.61	—	—
Mr. K. F. Chung	—	—	1. 9.61—30.11.61
Miss S. Buchanan	18.12.61— 2. 1.62	5. 9.61—14. 9.61	—

EXPERIMENTS.

During the course of the year, eighty-one cane variety experiments were reaped. The results of these experiments have been fully reported elsewhere in this Bulletin.

FINANCE.

The sum of $ 104,480.00 was voted from the funds of the Sugar Experiment Stations' Committee for the operation of the Station during the year. The total expenditure in 1961 amounted to $ 96,124.79.

A credit balance of $ 15,942.03 remained at the end of 1961. Receipts from assessments for the year amounted to $63,543.79. Receipts from the sale of cane during 1961 amounted to $35,055.53 and miscellaneous receipts to $1,939.88 while a credit balance of $11,527.62 was brought forward from 1960.

ACKNOWLEDGEMENTS

As in the past close contact was maintained between the Industry and the staff of the Sugar Experiment Station.

The cordial co-operation of the staff of the Sugar Estates and of the Sugar Experiment Station is very gratefully acknowledged. Special mention must be made of the assistance given by the Plant Pathology Division, Department of Agriculture, in the compiling of Leaf Scald disease ratings for the various varieties listed in Appendix IV.

C. D. WATKINS,
Sugar Agronomist.

APPENDIX I.

DETAILS OF POTTING AND PLANTING OF SEEDLINGS OF THE DEMERARA 1960 SERIES.

Cross		Potted	Planted	Deaths
H. 37–1933	x D. 37/45	50	40	10
	x D.B. 125/54	314	174	140
	x B. 41227	405	359	46
	x B. 47258	67	62	5
H. 38–2915	x D. 37/45	0	0	0
	x D.B. 125/54	6	5	1
H. 32–1063	x D. 37/45	360	354	6
	x D.B. 125/54	81	62	19
	x B. 41227	8	8	0
	x B. 47258	7	7	0
D. 219/55	x H. 32–8560	1	1	0
	x Co. 775	6	5	1
	x Co. 991	0	0	0
D. 158/41	x D. 37/45	3	3	0
	x B. 34104	0	0	0
	x B. 47258	5	4	1
	x B. 41227	6	5	1
	x H. 32–8560	8	8	0
	x Co. 678	6	3	3
	x Co. 991	27	20	7
	x Co. 775	21	11	10
C.P. 44–101	x B. 34104	2,219	2,156	63
	x D. 37/45	2,822	2,822	0
	x B. 41227	2,849	2,815	34
	x D.B. 125/54	256	250	6
	x B. 47258	2,153	2,153	0
M. 134/32	x D. 37/45	0	0	0
	x D.B. 125/54	12	10	2
	x B. 41227	0	0	0
	x B. 47258	3	3	0
D. 14/34	x Co. 678	27	27	0
	x Co. 991	40	40	0
	x Co. 775	23	19	4
	x H. 32–8560	35	29	6
	x B. 47258	605	567	38
D. 141/46	x H. 32–8560	85	74	11
	x B. 49119	64	49	15
	x B. 41227	77	69	8
	x D.B. 125/54	274	263	11
	x B. 47258	33	9	24
	x Co. 678	46	31	15
	x Co. 991	31	30	1
	x Co. 775	115	96	19
	x Vesta	270	245	25
M. 112/34	x D. 37/45	941	811	130
	x B. 41227	791	649	142
	x D.B. 125/54	272	75	197
	x B. 37193	236	190	46
	x B. 47258	80	58	22
Trojan	x D. 37/45	92	87	5
	x B. 47258	20	19	1
	x D.B. 125/54	44	44	0
	x B. 41227	1	1	0
B. 37161	x D. 184/46	64	23	41
Co. 421	x D.B. 125/54	117	11	106
	x B. 41227	1,277	1,181	96
	x B. 42231	722	648	74
D. 62/43	x B. 41227	9	9	0
	x H. 32–8560	124	116	8
	x B. 47258	158	136	22
	x Co. 678	338	320	18
	x D.B. 125/54	73	69	4
	x Co. 991	23	22	1
	x Co. 775	183	180	3
	x Vesta	1,569	1,445	124
Ragnar	x D. 37/45	0	0	0
	x D.B. 125/54	0	0	0
Eros	x D.B. 125/54	75	58	17
	x D. 37/45	215	191	24
	x B. 37193	57	34	23
	x B. 41227	167	138	29
	x Co. 678	85	80	5
Q. 28	x D. 37/45	3	3	0
	x D.B. 125/54	3	3	0
D. 26/52	x Co. 678	29	28	1
	x Co. 991	61	56	5
	x Co. 775	191	188	3
	x H. 32-8560	25	19	6
TOTAL		21,465	*19,780	1,685

* Includes 1,342 bunches and 10,314 singles.

APPENDIX II.

DETAILS OF POTTING AND PLANTING OF SEEDLINGS OF THE DEMERARA-BARBADOS 1960 SERIES.

No.	Cross.			Potted	Planted	Deaths
1	B. 45137	x	N.Co. 330	47	45	2
2	B. 45137	x	B. 52107	432	425	7
3	B. 52371	x	B. 49119	971	865	106
4	Co. 421	x	B. 54163	851	817	34
6	B. 5055	x	B. 4747	92	91	1
7	B. 5055	x	B. 53200	1,078	846	232
8	Co. 421	x	B. 47151	846	795	51
9	B. 45137	x	Co. 270	92	89	3
11	B. 53165	x	B. 34104	71	69	2
12	B. 48330	x	Co. 331	1,363	1,345	18
316	B. 45137	x	B. 47151	0	0	0
13						
344	B. 3365	x	B. 54163	6	6	0
14						
15	H. 32–8560	x	B. 41227	153	147	6
16	B. 5011	x	B. 52107	0	0	0
17	D. 62/43	x	B. 45151	476	460	16
18	H. 32–8560	x	32 M.Q. 579	12	11	1
19	H. 32–8560	x	B. 4327	774	739	35
20	H. 32–8560	x	B. 49198	38	34	4
21	B. 50146	x	B. 52107	0	0	0
336	B. 4906	x	B. 49119	6,466	5,312	1,154
23						
24	B. 42304	x	B. 49119	1,083	728	355
25	B. 45225	x	B. 50377	377	344	33
26	B. 47179	x	B. 45151	191	182	9
27	B. 5082	x	B. 45151	0	0	0
28	B. 5082	x	B. 49119	0	0	0
29	B. 48330	x	H. 32–1063	34	30	4
30	B. 45119	x	B. 49119	86	86	0
31	B. 45119	x	B. 5480	93	92	1
32	B. 42304	x	B. 4995	527	462	65
33	B. 42304	x	B. 50377	1,213	1,099	114
34	B. 3439	x	C.P. 43–64	169	161	8
35	B. 3439	x	B. 39220	11	9	2
36	B. 3365	x	B. 4744	178	174	4
37	B. 4906	x	B. 5480	1,309	631	678
38	B. 51116	x	B. 51134	219	211	8
39	H. 32–8560	x	B. 51134	2,228	1,895	333
40	B. 3439	x	B. 5480	68	65	3
41	B. 3439	x	B. 45237	883	855	28
42	B. 4906	x	B. 53200	189	183	6
43	B. 4906	x	B. 45151	1,185	1,134	51
44	B. 52321	x	B. 4744	44	43	1
45	B. 3365	x	B. 4738	40	34	6
46	B. 43253	x	B. 49119	810	800	10
47	B. 52389	x	Eros	242	220	22
48	B. 55258	x	Eros	265	263	2
49	B. 4145	x	B. 4744	37	30	7
50	B. 4145	x	B. 47258	269	247	22
52	B. 37172	x	B. 5411	4	4	0
53	F. 36–819	x	B. 47258	104	104	0
353	D. 62/43	x	Pindar	0	0	0
54						
56	B. 51131	x	Pindar	0	0	0
57	B. 51311	x	Pindar	37	30	7
58	B. 53348	x	B. 47258	2,070	1,842	228
59	B. 49388	x	B. 42231	156	146	10
60	B. 45121	x	Pindar	10	9	1
61	B. 45121	x	B. 4098	507	473	34
62	B. 4362	x	B. 41211	189	188	1
63	B. 3439	x	Pindar	82	79	3
64	P.R. 1000	x	B. 42231	601	591	10
65	P.R. 1000	x	B. 46364	770	637	133
66	Co. 360	x	B. 4098	600	538	62
67	B. 37172	x	Cl. 41–223	0	0	0
68	B. 51311	x	Cl. 41–223	0	0	0

APPENDIX II (Cont'd).

No.	Cross			Potted	Planted	Deaths
69	B. 53348	x	Cl. 41–223	8	7	1
333	B. 3439	x	B. 43337	262	247	15
70						
396	B. 45154	x	B. 4337	182	174	8
71						
72	B. 3172	x	B. 34104	94	90	4
73	B. 45119	x	B. 46364	107	106	1
76	B. 44233	x	B. 45151	1,848	1,520	328
77	B. 44233	x	B. 49119	1,420	1,236	184
80	B. 4581	x	B. 34104	3	2	1
81	B. 51131	x	B. 42231	4	4	0
82	B. 50210	x	B. 4744	362	347	15
83	B. 4096	x	B. 49119	1,223	1,088	135
84	Co. 360	x	B. 45151	776	734	42
85	F. 36–819	x	B. 34104	12	9	3
86	F. 36–819	x	B. 4744	30	25	5
87	B. 42279	x	B. 45151	1,447	1,399	48
88	B. 48357	x	B. 45151	154	152	2
89	B. 37161	x	B. 49119	773	719	54
90	B. 37161	x	B. 45151	372	324	48
91	B. 3172	x	B. 49119	125	122	3
92	B. 52222	x	B. 42231	3	3	0
93	B. 48209	x	B. 4098	289	284	5
94	F. 36–819	x	B. 3337	124	121	3
95	B. 5142	x	B. 4744	45	45	0
348	B. 3365	x	B. 42231	7	7	0
96						
409	B. 4581	x	B. 4744	4	3	1
97						
98	B. 44182	x	B. 34104	0	0	0
101	B. 50126	x	B. 41227	35	33	2
302	B. 55250	x	32 M.Q. 579	83	75	8
303	B. 55250	x	N.Co. 330	682	660	22
304	B. 52389	x	B. 41227	119	104	15
305	C. 32	x	B. 41227	57	53	4
306	B. 48361	x	B. 41227	0	0	0
307	Ba. 11569	x	B. 44130	7	5	2
308	B. 48361	x	G. 3322	13	12	1
309	B. 50151	x	Co. 678	1	1	0
310	B. 53165	x	B. 4747	140	137	3
312	B. 5650	x	D. 231	0	0	0
314	B. 53165	x	B. 49119	542	520	22
315	B. 52315	x	B. 43214	52	50	2
13	B. 45137	x	B. 47151	8	8	0
316						
318	C. 32	x	Co. 991	46	35	11
319	B. 45152	x	B. 59239	0	0	0
320	B. 5490	x	B. 5916	5	5	0
321	B. 4906	x	W.1	401	377	24
322	H. 32–8560	x	B. 47258	127	123	4
325	B. 55258	x	B. 50377	1,648	1,500	148
326	H. 32–8560	x	B. 47233	106	105	1
327	B. 3439	x	B. 49257	11	10	1
328	B. 45119	x	B. 49257	3	3	0
329	G. 31	x	B. 49257	2	2	0
330	B. 49257	x	Self	13	11	2
70	B. 3439	x	B. 43337	15	14	1
333						
334	Co. 213	x	Comus	0	0	0
23	B. 4906	x	B. 49119	101	94	7
336						
338	P 49170	x	Eros	55	53	2
339	B. 45119	x	Eros	4	4	0
340	B. 43380	x	C.P. 36–154	0	0	0
341	B. 3365	x	C.P. 36–154	561	375	186
342	B. 4906	x	B. 54163	11	11	0
343	B. 49170	x	B. 54163	8	8	0
345	B. 4906	x	C.P. 44–155	617	592	25
346	H. 32–8560	x	B. 43337	0	0	0
347	B. 55258	x	B. 43337	30	30	0

APPENDIX II (Cont'd).

No.	Cross			Potted	Planted	Deaths
96	B. 3365	x	B. 42231	152	137	15
348				290	283	16
349	H. 32–8560	x	B. 42231			
350	B. 42231	x	Self	0	0	0
351	B. 39254	x	B. 46364	1	1	0
352	B. 5082	x	Pindar	32	29	3
54	D. 62/43	x	Pindar	0	0	0
353						
354	B. 45152	x	Pindar	5	5	0
355	H. 32–8560	x	B. 47184	0	0	0
356	B. 3365	x	B. 47177	267	257	10
357	B. 55258	x	B. 47177	214	204	10
358	B. 3365	x	N.Co. 310	48	44	4
359	B. 5011	x	N.Co. 310	6	6	0
360	B. 4455	x	N.Co. 310	8	8	0
361	B. 52321	x	B. 49257	0	0	0
362	B. 45119	x	B. 4864	55	53	2
363	B. 53179	x	B. 47258	4	4	0
365	B. 47258	x	Self	0	0	0
374	Ragnar	x	B. 47258	0	0	0
375	B. 39254	x	B. 5501	0	0	0
376	Co. 360	x	B. 57156	17	14	3
377	B. 5985	x	B. 57156	0	0	0
378	B. 5319	x	Eros	0	0	0
379	B. 3365	x	B. 58231	0	0	0
380	B. 5037	x	C.P. 36–154	126	118	8
383	B. 40105	x	B. 5686	0	0	0
384	B. 39254	x	Trojan	0	0	0
385	P.R. 1000	x	B. 5736	903	768	135
386	B. 45115	x	B. 5736	16	15	1
387	B. 5061	x	B. 5745	7	6	1
388	B. 5791	x	B. 5745	23	22	1
389	B. 54243	x	U. 1422	2	2	0
390	U. 1422	x	Self	8	8	0
391	B. 4145	x	E. 232	0	0	0
393	H. 32–8560	x	A. 131	5	4	1
395	B. 4733	x	B. 55228	10	7	3
397	B. 4906	x	B. 4362	77	74	3
400	B. 5319	x	B. 46364	0	0	0
402	B. 46364	x	Self	7	6	1
403	B. 4550	x	B. 417	12	9	3
404	B. 4733	x	B. 54142	106	102	4
406	Co. 360	x	B. 47314	31	30	1
407	B. 50210	x	B. 47314	12	11	1
408	B. 51311	x	B. 47314	14	14	0
97	B. 4581	x	B. 4744	0	0	0
409						
410	B. 45220	x	B. 4744	0	0	0
411	B. 4145	x	B. 47314	0	0	0
412	B. 3172	x	B. 47314	0	0	0
413	B. 4744	x	Self	2	2	0
415	B. 53348	x	B. 50135	0	0	0
416	B. 37161	x	B. 5744	0	0	0
417	B. 5401	x	B. 57100	0	0	0
418	P.R. 1000	x	B. 54142	65	60	5
419	B. 44233	x	B. 51242	0	0	0
420	B. 42279	x	B. 51242	0	0	0
421	F. 36–819	x	B. 5213	0	0	0
423	B. 4092	x	B. 54142	0	0	0
424	B. 4214	x	B. 54142	26	23	3
425	B. 54142	x	Self	12	11	1
426	B. 5401	x	B. 5744	33	29	4
430	B. 52222	x	B. 47258	76	69	7
431	B. 37161	x	B. 47258	237	220	17
	Totals.			48,743	43,148	5,595

APPENDIX III.

DETAILS OF THE SELECTION OF THE DEMERARA—BARBADOS 1959 SERIES.

No.	Cross		Number in Nursery.	Plant Selection			1st Ratoon Selection		
				Field.	Final.	% Selection.	Reselected in Ratoons	New Selections	% Selection.
1	Co. 421	x B. 54163	247	7	1	0.40	0	1	0.40
2	B. 43283	x B. 42231	18	1	1	5.56	0	0	0
3	B. 45137	x B. 45151	2	0	0	0	0	0	0
4	B. 53267	x B. 42231	86	0	0	0	0	0	0
5	B. 5650	x B. 4747	17	1	1	5.88	0	0	0
6	Ba. 11569	x N. Co. 330	5	0	0	0	0	0	0
8	B. 44132	x Comus	9	0	0	0	0	0	0
11	B. 45137	x B. 49380	35	3	0	0	0	3	8.57
12	B. 5012	x Co. 331	2	0	0	0	0	0	0
14	Co. 421	x B. 5411	169	9	4	2.37	2	5	4.15
16	Ba. 11569	x B. 35276	4	0	0	0	0	0	0
17	B. 43283	x B. 45151	770	29	6	0.78	0	2	0.26
19	Otaheite	x B. 39250	21	0	0	0	0	0	0
22	B. 56104	x B. 45151	142	12	4	2.82	1	0	0.70
23	D. 62/43	x B. 41227	6	1	0	0	0	1	16.66
24	B. 45137	x B. 41355	42	5	2	4.76	0	0	0
25	B. 56104	x B. 42231	21	2	2	9.52	0	0	0
29	B. 3365	x B. 49119	49	3	1	2.04	1	0	2.04
30	B. 45119	x B. 49119	66	0	0	0	0	0	0
31	B. 48361	x B. 4744	4	2	0	0	0	0	0
32	B. 3365	x C.P. 44-101	8	0	0	0	0	0	0
35	Ba. 11569	x B. 48394	6	0	0	0	0	0	0
36	B. 43295	x B. 49119	6	0	0	0	0	0	0
37	Ba. 11569	x B. 47184	2	0	0	0	0	0	0
38	Ba. 11569	x B. 47157	117	5	0	0	0	0	0
40	Otaheite	x B. 47199	132	1	0	0	0	1	0.76
41	B. 35247	x B. 45151	1,763	75	21	1.19	0	19	1.08
42	B. 4145	x B. 50377	57	3	1	1.75	0	0	0
43	Trojan	x B. 49119	55	5	0	0	0	3	5.45
44	H. 32–8560	x Eros	1,314	30	10	0.76	1	6	0.53
45	B. 53179	x B. 49119	17	0	0	0	0	0	0
46	B. 45198	x B. 4744	142	2	0	0	0	2	1.41
47	B. 45152	x B. 45151	16	0	0	0	0	0	0
48	B. 3439	x Q. 50	141	1	1	0.71	0	2	1.42
49	B. 39254	x B. 42231	69	2	2	2.90	0	0	0
50	B. 3365	x B. 45151	413	11	6	1.45	1	6	1.69
51	B. 4145	x B. 4744	49	6	0	0	0	5	10.20
52	H. 32–8560	x B. 4744	237	18	4	1.69	0	3	1.26
53	B. 3439	x Eros	315	15	4	1.27	0	2	0.63
54	B. 3439	x B. 50377	296	13	5	1.69	0	3	1.01
56	Co. 421	x B. 5480	166	11	4	2.41	4	2	3.61
57	B. 3439	x N. Co. 310	341	39	2	0.59	1	1	0.29
59	B. 43295	x B. 4098	3	1	1	33.33	0	0	0
61	B. 52315	x B. 4098	984	64	20	2.03	3	14	1.73
62	B. 44111	x B. 4098	2,245	67	11	0.49	1	10	0.49
63	B. 44152	x B. 4098	272	14	6	2.21	0	2	0.74
64	B. 37226	x B. 4098	2	0	0	0	0	0	0
66	B. 53348	x B. 41211	2,161	52	23	1.06	2	5	0.32
69	Trojan	x B. 41227	96	7	4	4.17	1	2	3.13
70	B. 37161	x B. 39220	3	0	0	0	0	0	0
71	B. 50146	x B. 50377	24	2	0	0	0	0	0
72	B. 37161	x B. 53200	59	5	3	5.08	0	2	3.39
73	D. 62/43	x N. Co.310	131	12	1	0.76	1	0	0.76
75	B. 4373	x B. 45151	138	8	2	1.45	0	2	1.45
77	F. 36–819	x B. 45151	286	12	2	0.70	0	9	3.14
79	Trojan	x Co. 290	141	9	0	0	0	3	2.13
81	B. 45152	x B. 52298	52	2	0	0	0	2	3.84
83	B. 53355	x B. 49119	79	1	0	0	0	2	2.53
84	B. 5652	x B. 45151	109	3	2	1.83	0	0	0
85	B. 5652	x B. 49119	474	15	5	1.05	2	8	2.11
88	B. 5028	x Co. 290	410	10	5	1.22	1	2	0.73
89	H. 32–8560	x B. 52298	150	3	0	0	0	0	0
90	B. 5012	x B. 4738	45	3	0	0	0	1	2.22
91	B. 5028	x Pindar	90	1	0	0	0	0	0
92	B. 40105	x B. 49119	366	12	2	0.55	0	4	1.09
94	B. 3439	x Pindar	68	1	0	0	0	6	8.82
95	M. 134/32	x B. 45116	40	2	1	2.50	0	0	0
96	B. 5651	x B. 45151	343	17	3	0.87	2	3	1.46
98	B. 45154	x B. 45151	576	26	2	0.35	0	6	1.04
99	B. 4092	x B. 51134	48	4	2	4.17	2	1	6.25
106	B. 42279	x B. 49119	15	0	0	0	0	0	0
107	B. 4214	x B. 4098	11	1	0	0	0	0	0
111	B .48330	x B. 45151	144	13	1	0.69	1	2	2.08
322	Otaheite	x B. 47331	3	0	0	0	0	0	0

APPENDIX III (Cont'd).

No.	Cross	Number in Nursery	Plant Selection.			1st Ratoon Selection.		
			Field.	Final.	% Selection	Reselected in Ratoons	New Selections	% Selection
326	H. 32-8560 x Co. 991	5	0	0	0	0	1	20.00
327	B. 46103 x Co. 991	1	0	0	0	0	0	0
330	B. 3365 x B. 42231	21	0	0	0	0	0	0
332	H. 32-8560 x B. 42231	11	0	0	0	0	0	0
334	B. 42231 x Self	12	0	0	0	0	0	0
335	B. 55258 x B. 39220	2	0	0	0	0	0	0
338	B. 39220 x Self	3	0	0	0	0	0	0
340	B .5301 x Self	7	0	0	0	0	0	0
343	H. 32-8560 x Eros	81	0	0	0	0	1	1.23
344	Eros x Self	220	0	0	0	0	0	0
346	H. 32-8560 x B. 43234	1	0	0	0	0	0	0
348	B. 3365 x Co. 775	7	1	0	0	0	0	0
351	B. 4744 x Self	25	2	1	4.00	0	0	0
354	B. 3439 x B. 45151	21	1	1	4.76	0	1	4.76
355	B. 5012 x B. 45151	13	0	0	0	0	0	0
358	P.R. 1000 x B. 50377	53	4	2	3.77	0	0	0
362	B. 52298 x B. 50377	180	7	7	3.89	0	1	0.55
364	B. 53200 x B. 50377	222	9	2	0.90	0	1	0.45
366	B. 51355 x B. 50377	557	7	1	0.18	0	5	0.90
370	J. 51 x B. 121	3	0	0	0	0	0	0
373	P.R. 1000 x B. 51148	169	11	1	0.59	0	0	0
374	B. 51148 x Self	23	0	0	0	0	0	0
375	B. 39254 x Co. 270	3	0	0	0	0	0	0
376	B. 51131 x Co. 270	2	0	0	0	0	1	50.00
378	Trojan x Co. 290	26	1	0	0	0	1	3.84
390	H. 32-8560 x B. 4738	10	0	0	0	0	0	0
394	B. 3365 x N. Co. 310	22	1	1	4.55	0	0	0
397	B. 50210 x Pindar	86	0	0	0	0	0	0
400	Trojan x Pindar	16	4	0	0	0	2	12.50
405	B. 50210 x B. 45151	1	0	0	0	0	0	0
408	P.R. 1000 x C. 4144	204	5	2	0.98	0	0	0
421	H. 32-8560 x B. 54142	105	5	0	0	0	1	0.95
422	B. 50210 x B. 54142	35	4	0	0	0	4	11.42
431	B. 53348 x B. 49119	13	0	0	0	0	0	0
432	B. 54142 x Self	2	1	0	0	0	0	0
433	Trojan x B. 44226	5	0	0	0	0	0	0
434	B. 50210 x B. 44226	12	0	0	0	0	0	0
437	B. 5862 x Self	4	1	0	0	0	1	25.00
443	B. 52143 x N. Co. 310	9	0	0	0	0	0	0
445	B. 47399 x B. 5862	50	2	1	2.00	0	0	0
448	Trojan x B. 44226	40	0	0	0	0	0	0
452	B. 45220 x B. 54163	11	0	0	0	0	2	18.18
458	B. 39254 x B. 45109	14	1	1	7.14	1	0	7.14
459	Trojan x B. 44227	733	20	6	0.82	0	0	0
	TOTAL	19,982	773	204	1.02	28	175	1.02

DETAILS OF THE SELECTION OF THE DEMERARA-BARBADOS 1950 SERIES.

No.	Female Parent	Number in Nursery	Plant Selection			1st Ratoon Selection		
			Field	Final	% Selection	Reselected in Ratoons	New Selections	% Selection
P. 1	B. 41227	4	1	0	0	0	0	0
P. 2	N. Co. 330	42	1	0	0	0	0	0
P. 3	B. 41227	1	0	0	0	0	0	0
P. 7	N. Co. 330	241	8	3	1.24	1	3	1.66
P. 8	Co. 991	20	0	0	0	0	0	0
P. 9	Co. 991	14	0	0	0	0	0	0
P. 10	B. 49119	1	0	0	0	0	0	0
P. 11	B. 37161	41	9	7	17.07	3	0	7.32
P. 12	Trojan	314	7	4	1.27	1	1	0.64
P. 15	Trojan	616	25	6	0.97	0	5	0.81
P. 16	B. 4373	31	2	0	0	0	0	0
P. 18	N. Co. 330	12	0	0	0	0	0	0
P. 20	B. 4373	54	2	1	1.85	0	0	0
P. 21	N. Co. 330	90	6	0	0	0	0	0
P. 23	B. 47225	1	0	0	0	0	0	0
P. 26	B. 37161	58	6	4	6.90	0	1	1.72
P. 28	B. 50210	551	10	4	0.73	0	1	0.18
P. 30	B. 49203	307	5	3	0.98	1	4	1.63
P. 31	B. 49119	144	7	4	2.78	0	1	0.69
P. 32	B. 52178	540	12	5	0.93	3	5	1.48
P. 33	Eros	1,240	103	14	1.13	6	16	1.77
P. 34	B. 47184	148	4	2	1.35	0	0	0
P. 35	B. 45109	500	11	5	1.00	1	0	0.20
P. 36	B. 4409	1	0	0	0	0	0	0
P. 37	Tukuyu No.2	125	0	0	0	0	0	0
P. 38	B. 45266	720	20	5	0.69	1	17	2.50
P. 39	B. 5121	134	0	0	0	0	0	0
P. 40	B. 47312	165	10	0	0	0	0	0
P. 41	B. 57100	63	3	0	0	0	0	0
P. 42	B. 37254	1,457	0	0	0	0	5	0.34
P. 43	B. 5032	88	1	0	0	0	1	1.14
P. 44	B. 47380	388	14	0	0	0	2	0.52
P. 45	B. 5411	227	6	2	0.88	1	5	2.64
P. 46	B. 43234	2	0	0	0	0	0	0
P. 47	B. 42231	384	32	12	3.13	8	4	3.13
P. 48	B. 45105	12	0	0	0	0	0	0
P. 49	B. 48179	32	2	1	3.13	1	0	3.13
P. 50	C.P. 44-155	300	18	1	0.33	0	0	0
P. 51	B. 35269	3	0	0	0	0	0	0
P. 52	B. 4327	405	5	1	0.25	1	2	0.74
P. 53	B. 50382	238	4	0	0	0	1	0.42
P. 54	F. 31-962	291	6	1	0.34	0	1	0.34
P. 55	B. 43346	234	6	2	0.85	0	0	0
P. 56	B. 4668	282	9	4	1.42	0	1	0.35
P. 57	Co. 281	107	2	0	0	0	0	0
P. 58	B. 49224	419	17	7	1.67	1	6	1.67
P. 59	B. 50135	448	10	3	0.67	0	2	0.45
P. 60	B. 5301	116	3	1	0.86	0	0	0
P. 61	Trojan	35	7	1	2.86	1	3	11.43
P. 62	B. 44226	109	1	0	0	0	0	0
P. 64	B. 45121	34	1	0	0	0	0	0
P. 65	F. 36-819	6	0	0	0	0	0	0
P. 66	B. 47157	75	2	0	0	0	0	0
P. 67	B. 51311	142	2	1	0.70	0	1	0.70
P. 68	B. 4524	407	8	1	0.25	1	1	0.50
P. 69	B. 49374	1	00	0	0	0	0	0
P. 70	B. 54243	21	00	0	0	0	0	0
P. 71	B. 49388	62	2	0	0	0	4	6.45
P. 72	Cl. 41-223	298	4	2	0.67	0	0	0
P. 73	Co. 415	86	2	2	2.33	0	0	0
P. 74	B. 51148	2,047	72	14	0.68	0	8	0.39
P. 75	B. 47183	19	0	0	0	0	0	0
P. 76	B. 49166	3	1	0	0	0	0	0
P. 77	B. 43380	4	1	0	0	0	0	0
P. 78	B. 45119	13	0	0	0	0	0	0
P. 79	B. 51269	827	16	1	0.12	1	0	0.12
P. 80	B. 5055	19	0	0	0	0	0	0
TOTAL		15,869	506	124	0.78	32	101	0.84
GRAND TOTAL ..		35,826	1,279	328	0.92	60	276	0.94

APPENDIX IV.

LEAF SCALD RATINGS OF SOME SUGAR CANE VARIETIES IN BRITISH GUIANA.

Numerous varieties have been tested by the Department of Agriculture for their resistance of Leaf Scald Disease. Listed below are the ratings for some of the varieties of interest to the industry, including breeding canes.

Leaf Scald Ratings of Barbados Varieties.

Very Susceptible	Susceptible	Susceptible —Tolerant	Tolerant	Resistant
B. 34104	B. 4553	B. 37161	B. 37172	B. 3337
B. 49353	B. 45151	B. 41227	B. 40105	B. 4098
	B. 46369	B. 41211	B. 43253	B. 4373
	B. 4733	B. 4306	B. 43413	B. 43330
	B. 47179	B. 4362	B. 4534	B. 4743
	B. 47419	B. 43229	B. 45137	B. 4788
	B. 49119	B. 43349	B. 45152	B. 47225
	B. 54142	B. 46136	B. 45270	B. 47262
	B. 5782	B. 46230	B. 4688	B. 47379
	B. 5785	B. 46339	B. 46218	B. 4906
		B. 4724	B. 46378	B. 49257
		B. 4744	B. 4747	B. 50135
		B 50275	B. 47258	B. 50267
		B 51116	B. 48372	B. 51131
			B. 4942	B 5277
			B 4995	B. 52107
			B. 50347	B. 52222
			B. 53200	B. 52315
				B 53218
				B. 53227
				B. 53320
				B. 54262
				B. 54277

Leaf Scald Ratings of Demerara and Demerara—Barbados Varieties.

D. 14/34	D. 36/43	D. 2/46	D. 158/41	D. 49/46
D 142/41	D. 62/43	D. 141/46	D. 133/46	D. 201/55
D. 625	D. 37/45			D. 219/55
				D.B. 154/55

Leaf Scald Ratings of Other Varieties.

M. 112/34	Co. 419	Diamond 10	M. 213/40	M. 134/32
Trojan	Comus	Co. 421	M. 423/41	S.D. 94/45
F. 36–819	Eros	Pindar	P.O.J. 2878	N Co. 300
H. 32–8560	N.Co. 310	Ebene 1/37	P.O.J. 2967	
H. 37–1933	Q. 28		P.O.J. 3016	
	H. 38–2915		Pepecuca	
	Vesta		H. 44–3098	
	Ragnar			